

20010329.qrp v02\_n142.qrl.20010329

Date: Thu, 29 Mar 2001 19:03:14 EST

From: qrp-l@Lehigh.EDU

To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>

Subject: QRP-L digest 2142

## QRP-L Digest 2142

Topics covered in this issue include:

- 1) [95160] Re: FOX Cub Fox  
by DYARNES@aol.com
- 2) [95161] Re: Atlanticon & Light Rail  
by "E. Roswell" <eroswell@monmouth.com>
- 3) [95162] Re: Atlanticon Light Rail, Addendum  
by "E. Roswell" <eroswell@monmouth.com>
- 4) [95163] Atlanticon - Baltimore Light Rail - Hotel/Hamfest Stop  
by "Brian B. Riley, N1BQ" <n1bq@wulfdn.org>
- 5) [95164] Re: TT2  
by "Chuck Carpenter" <w5usj@globeco.net>
- 6) [95165] Re: FOX Cub Fox  
by "Russell C. Dow" <n7dw@pacbell.net>
- 7) [95166] Re: MFJ 9020 Drift  
by RangerSF5@aol.com
- 8) [95167] Dayton Rooms  
by Joe Smith <joe@joesmith.net>
- 9) [95168] VP5/W5A0 on 14.005 @ 0115Z  
by david gauding <david.gauding@bbs.galilei.com>
- 10) [95169] NEQRP CW Net, Thursday, 29 Mar 01, 9:00PM EST, 3.561 MHz  
by Chuck Ludinsky <cjl@mitre.org>
- 11) [95170] How many radials? (Ribbon Radials & Conductors)  
by "Phil (VA3UX)" <phil@vaxxine.com>
- 12) [95171] Continued solar activity  
by "Paul Harden, NA5N" <na5n@rt66.com>
- 13) [95172] Re: Warbler receive problem "Shadows"  
by "William Mabry" <n4qa@hotmail.com>
- 14) [95173] Re: [MH101] Crystal Matching [long]  
by Bill Stietenroth <k5zty@juno.com>
- 15) [95174] HP3XBH on 14.013 @ 0154Z  
by david gauding <david.gauding@bbs.galilei.com>
- 16) [95175] Re: Continued solar activity  
by "N7SG K7FD" <k7fd@hotmail.com>
- 17) [95176] Metal working question.  
by "Alex Turner" <aturner13@triad.rr.com>
- 18) [95177] ELEKTA software  
by "Alex Turner" <aturner13@triad.rr.com>
- 19) [95178] Vibroplex covers, Jones key?

- by "T.W." <wb5qyt@abq.com>
- 20) [95179] Re: Continued solar activity  
by "Rod Cerkoney" <n0rc@hotmail.com>
  - 21) [95180] Re: Metal working question.  
by "ZOOM" <kandrparker@sympatico.ca>
  - 22) [95181] Ribbon Radials and reality  
by K5BDZ@aol.com
  - 23) [95182] RE: [MH101] Crystal Matching [long]  
by Nick Kennedy <nkennedy@tcainternet.com>
  - 24) [95183] Re: Ribbon Radials and reality  
by "John Moriarity" <k6qq@hdo.net>
  - 25) [95184] Re: How many radials? (Ribbon Radials & Conductors)  
by david gauding <david.gauding@bbs.galilei.com>
  - 26) [95185] Extreme Foxhunt  
by FrConrad@aol.com
  - 27) [95186] Re: Metal working question.  
by KB7WW Art Moe <kb7ww@chatusa.com>
  - 28) [95187] Re: Ribbon Radials and reality  
by Macstein@aol.com
  - 29) [95188] Re: Metal working question.  
by <igeq100@iupui.edu>
  - 30) [95189] 10 Meter Conditions  
by Kenneth Hoglund <hoglund@wfu.edu>
  - 31) [95190] Re: Vibroplex covers, Jones key?  
by Russ Dow <n7dw@pacbell.net>
  - 32) [95191] Re: Metal working question.  
by "Leon Heller" <leon\_heller@hotmail.com>
  - 33) [95192] SMK-1 photos  
by John Rollins <kd7bcy@teleport.com>
  - 34) [95193] Re: Extreme Foxhunt  
by "Marshall Emm" <mgemm@mtechnologies.com>
  - 35) [95194] Correction --> How many radials? (Ribbon Radials & Conductors)  
by "Phil (VA3UX)" <phil@vaxxine.com>
  - 36) [95195] Re: Ribbon Radials and reality  
by K5BDZ@aol.com
  - 37) [95196] Laptop batteries  
by "Karl F. Larsen" <k5di@zianet.com>
  - 38) [95197] Looking for Crystal source  
by Alen Mitrovic <alen.mitrovic@hermes.si>
  - 39) [95198] Re: Battery Comparisons on the K1 - Alkaline vs NiMH  
by Rick Robinson <rrobbins@email.uncc.edu>
  - 40) [95199] Re: [MH101] Crystal Matching  
by Curt Milton <wb8yyy@yahoo.com>
  - 41) [95200] Huge Sun Spot  
by Thomas Jennings <jennings@shell1.eznet.net>
  - 42) [95201] Re: Metal working question.  
by Pete Burbank <plburbank@kih.net>
  - 43) [95202] Re: Metal working question.

by "Mike Yetsko" <myetsko@insydesw.com>

44) [95203] X-class flare 1000UTC 29MAR  
by "Paul Harden, NA5N" <na5n@rt66.com>

45) [95204] Were Is Dave Fifield  
by Bob Welch <p326@earthlink.net>

46) [95205] CW for HTX-10  
by "Tom Dufresne" <tdufres@hotmail.com>

47) [95206] Re: Metal working question.  
by "Bob Tellefsen" <n6wg@earthlink.net>

48) [95207] OT: Radio opinion  
by "Dan W. Dooley" <dandooley@pipeline.com>

49) [95208] Sunspots and band conditions -- outstanding!  
by "Alan Kaul" <alan.kaul@worldnet.att.net>

50) [95209] NorCal Toroid Kit Shipping Status  
by "Doug Hendricks" <ki6ds@dph.dpol.net>

51) [95210] 2N3553  
by "Davies, Doug A FOR:EX" <Doug.Davies@gems3.gov.bc.ca>

52) [95211] 100 mW PSK31 beacon - 3580.1 (29 Mar @ 1930 UTC)  
by John Harper AE5X <ae5x@qsl.net>

53) [95212] RE: [MH101] Crystal Matching [shorter]  
by "Juan Jose Pastor Estornell" <juanjope@ctv.es>

54) [95213] Taking skeds for 10 meters...  
by "Juan Jose Pastor Estornell" <juanjope@ctv.es>

55) [95214] Atlanticon weather & final speaker lineup  
by "George Heron N2APB" <n2apb@erols.com>

56) [95215] Zm-2  
by "Nico Vertriest" <nvcw@village.uunet.be>

57) [95216] Temporary license in the Philippines : procedure  
by "Nico Vertriest" <nvcw@village.uunet.be>

58) [95217] Atlanticon  
by "Doug Hendricks" <ki6ds@dph.dpol.net>

59) [95218] Add Dave N0IT to Cub Xtreme Hunt :-)  
by "Wilford D. Lindsey" <70511.3041@compuserve.com>

60) [95219] Re: Battery Comparisons on the K1 - Alkaline vs NiMH  
by Larry Cahoon <lejek@erols.com>

61) [95220] Re: St. Louis Radials  
by Bill Coleman <aa4lr@arrl.net>

62) [95221] Re: St. Louis Radials, Dave Gauding & JayBob, Nose Hair Special & Paul Harden's Sunspots, whew!!  
by "Doug Hendricks" <ki6ds@dph.dpol.net>

63) [95222] Apology for excessive quote.  
by "Doug Hendricks" <ki6ds@dph.dpol.net>

64) [95223] Drift Problem in MFJ 9020  
by "Davies, Doug A FOR:EX" <Doug.Davies@gems3.gov.bc.ca>

65) [95224] Re: Fox: Announcing the XTREME FOXHUNT!  
by Fred Lesnick <flesnick@tbaytel.net>

66) [95225] RIT for SST?  
by John Harper AE5X <ae5x@qsl.net>

- 67) [95226] 80M QSO Wanted  
by "Mugleston, Brad" <brad.mugleston@gwl.com>
- 68) [95227] Re: RIT for SST  
by <glentorr@ozemail.com.au>
- 69) [95228] Loading question  
by Drbob92031@aol.com
- 70) [95229] Re: Warbler and 'shadows'  
by "Dave Benson" <nn1g@earthlink.net>
- 71) [95230] Computer rescue  
by RLemmel@aol.com
- 72) [95231] Re: RIT for SST?  
by Roy <marion@montana.com>

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Date: Wed, 28 Mar 2001 19:04:24 EST  
From: DYARNES@aol.com  
To: bmurrey@amexol.net, qrp-l@lehigh.edu  
Subject: [95160] Re: FOX Cub Fox  
Message-ID: <46.12a3f352.27f3d608@aol.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset="US-ASCII"  
Content-Transfer-Encoding: 7bit

In a message dated 3/28/01 7:14:18 AM US Mountain Standard Time,  
bmurrey@amexol.net writes:

<< In Indiana we don't have DST because of the farm lobby. See, the farm lobby  
has convinced the legislature that if we had an extra hour of daylight in  
the evening, it would probably burn the crops. >>

I thought it was only PART of Indiana that didn't go on daylight savings  
time. Indiana is actually divided (two time zones in one state). The part  
on Central time does go on daylight savings time I think (because it's near  
Chicago which does. Some of those on Eastern time go on daylight savings,  
and another part doesn't. Can't remember exactly which counties are  
involved, but just read that somewhere.

Arizona doesn't go on DST because back when it was made mandatory (due to the  
energy crisis back in the 70's), Arizona argued that going on DST here would  
actually cause more energy to be consumed (air conditioning, lights, etc.),  
but I personally have never fully understood the reasoning, and I live here  
in Arizona!

Anyway, it does create confusion, especially for those in other time zones  
who know we are in the mountain zone. It also confuses my wife!

Dave W7AQK

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Date: Wed, 28 Mar 2001 19:26:01 -0500  
From: "E. Roswell" <eroswell@monmouth.com>  
To: qrp-1@Lehigh.EDU  
Subject: [95161] Re: Atlanticon & Light Rail  
Message-ID: <3AC28119.4396F092@monmouth.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Two trains run out of BWI to Maryland area. The MARC train goes to Baltimore Penn Stn, where you would have to go west 2 blocks to the Light Rail Mt.Royal stop to go North to Timonium.  
The Light Rail leaves BWI airport on the Yellow line and brings you to Baltimore, where you have to transfer to the Blue Route. These two Light Rail routes run the same stops from Linthicum to Camden Yards to Mt. Royal; you can get off the Yellow Rte train at any one of these stops and get the next Blue Rte train.  
The Blue Rte goes North to the Timonium Business Park (where is the Holiday Inn) and thence to Timonium (where is the Fairgrounds, and the ham/computer fest  
The MARC fare from BWI to Penn Stn is \$3.25.  
The one-way Light Rail fare is \$1.35. Light Rail tix are dispensed from machines (which give change) at each stop.  
See the Maryland Transit web site at:  
<http://www.mtmaryland.com/news/news.htm>  
73,  
Ed, K2MGM.

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Date: Wed, 28 Mar 2001 19:31:18 -0500  
From: "E. Roswell" <eroswell@monmouth.com>  
To: qrp-1@Lehigh.EDU  
Subject: [95162] Re: Atlanticon Light Rail, Addendum  
Message-ID: <3AC28256.8ECB5E8@monmouth.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Telephone Numbers:  
Bus, light rail, Metro subway &  
MARC Train info: 410-539-5000  
Toll-free: 800-543-9809

MARC Train info: 800-325-RAIL

This is from a Feb 1997 brochure, so I cannot vouch for the currency of the numbers.

73,

Ed, K2MGM.

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Date: Wed, 28 Mar 2001 19:40:20 -0500  
From: "Brian B. Riley, N1BQ" <n1bq@wulfden.org>  
To: "NJ-QRP List" <njqrp@njqrp.org>, "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>  
Cc: <graham.firth@btinternet.com>  
Subject: [95163] Atlanticon - Baltimore Light Rail - Hotel/Hamfest Stop  
Message-ID: <LPBBJAGIPFHKPJENAKLOIEBHEDAA.n1bq@wulfden.org>  
MIME-Version: 1.0  
Content-Type: text/plain;  
        charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

There has been some discussion and confusion about the Light Rail Line running up from BWI to the Holiday Inn, the map referenced in the URL below shows the two different "lines" on the Light Rail. You need to simply get off the train coming up from BWI and walk across the platform and get a different train that runs on a sked about 7 minutes behind the line from BWI.

<[http://www.mtmaryland.com/light\\_rail/light\\_rail\\_map2.htm](http://www.mtmaryland.com/light_rail/light_rail_map2.htm)>

The stop that lets you out adjacent to the Holiday Inn and the Baltimore hamfest is called "Timonium Business Park," the street is "Green Spring Drive" which is also called "Business Park Drive"

The train schedules are located at

<[http://www.mtmaryland.com/light\\_rail/light\\_rail\\_schedule.htm](http://www.mtmaryland.com/light_rail/light_rail_schedule.htm)>

There are different scheds for weekdays/Saturdays and Sundays.

72/73 de brian, n1bq

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N1BQ-3 @ 44 31.73N 072 51.55W

WideN-N digi and weather station in Underhill Center, VT  
<<mailto:n1bq@wulfden.org>>

NoVT QRP Society <<http://www.wulfdan.org/NVQS/>>  
AMSAT LM-1418 NJQRP #274 ARS #915  
QRP-L #2276 Zombie #768 NVQS #002

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Date: Wed, 28 Mar 2001 18:42:21 -0600  
From: "Chuck Carpenter" <[w5usj@globeco.net](mailto:w5usj@globeco.net)>  
To: [k4byf@juno.com](mailto:k4byf@juno.com), "Low Power Amateur Radio Discussion" <[qrp-l@Lehigh.EDU](mailto:qrp-l@Lehigh.EDU)>  
Subject: [95164] Re: TT2  
Message-ID: <3.0.2.32.20010328184221.006b71c4@mail.globeco.net>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

Jack et al,

That cover picture is also linked through the Whiterook key website

<http://electronicsusa.com/home.html>

and the original TT2 picture is here...

<http://clocksusa.com/tuna/tt2page1.html>

>A friend gave me a May 1976 QST with a TT2 an open tuna fish can and a  
>feline on the front cover. It is a great picture for all of us TT2 fans  
>to put in the shack. 73/72 de Jack, K4BYF

Chuck Carpenter, W5USJ, Point, Rains Co., TX - EM22cv, NETXQRP #1  
ARCI #5422, QRP-L #1306, SOC #57, Six Club #201, SMIRK #6275  
Zombie #749, RARA #3, NETXQRP Web Site <http://www.netxqrp.org>  
[TMPS] Qs - 115, States - 39, DX - 25, 3W to HF9V (or W9INN Inv V)

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Date: Wed, 28 Mar 2001 16:49:21 +0000  
From: "Russell C. Dow" <[n7dw@pacbell.net](mailto:n7dw@pacbell.net)>  
To: unlisted-recipients:; (no To-header on input)  
Cc: Low Power Amateur Radio Discussion <[qrp-l@Lehigh.EDU](mailto:qrp-l@Lehigh.EDU)>  
Subject: [95165] Re: FOX Cub Fox  
Message-ID: <3AC21611.5E6F4046@pacbell.net>  
MIME-version: 1.0  
Content-type: text/plain; charset=us-ascii

Content-transfer-encoding: 7bit

Brian and the gang,

Usually the changeovers are the first Sunday in April and the last Sunday in October. So next Sunday (April 1) should be the day.

73,  
Russ N7DW

"Brian B. Riley, N1BQ" wrote:

> Daylight Savings Time - is that coming this weekend?? I thought it was  
> later in the month???

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Date: Wed, 28 Mar 2001 19:53:39 EST  
From: RangerSF5@aol.com  
To: Doug.Davies@gems3.gov.bc.ca, qrp-1@lehigh.edu  
Subject: [95166] Re: MFJ 9020 Drift  
Message-ID: <57.139e9f35.27f3e193@aol.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset="US-ASCII"  
Content-Transfer-Encoding: 7bit

In a message dated 3/28/01 5:52:44 PM Eastern Standard Time,  
Doug.Davies@gems3.gov.bc.ca writes:

<< Have any of the owners of the MFJ 9020 20 meter CW QRP rig experienced any drift problems? I just got one in a trade and had it on the air last night. During a QSO, it drifted down about 4-5KHz (quite annoying). If you have >> Look on the board to the rear just about center. You should see a VER # there. You may have the older VER # board. Verify this and mail me direct. Also double check you're board voltage as per the PAUL HARDEN MFJ TUNE UP. WA2HOQrp <tm>

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Date: Wed, 28 Mar 2001 19:03:09 -0600 (CST)  
From: Joe Smith <joe@joesmith.net>  
To: qrp-1@lehigh.edu  
Subject: [95167] Dayton Rooms  
Message-ID: <Pine.LNX.4.10.10103281900190.24711-100000@nikola.joesmith.net>



MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

Wonder where the confirmation info on the Dayton Hotel rooms is? It's only 6 weeks out...

72 de W0J0dit

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"Learn to laugh at your problems, everyone else does"

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Date: Wed, 28 Mar 2001 19:08:28 -0600  
From: david gauding <david.gauding@bbs.galilei.com>  
To: qrp-l@lehigh.edu  
Subject: [95168] VP5/W5A0 on 14.005 @ 0115Z  
Message-ID: <5.0.2.1.0.20010328190622.02480da0@bbs.galilei.com>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"; format=flowed

VP5/W5A0 on 14.005 @ 0115Z

599++ into the Midwest - Looking for stations - No waiting.

Used 500 milliwatts from SLQ vertical and Argo 515.

Good luck,

de Dave, NF0R      nf0r@slacc.com

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Date: Wed, 28 Mar 2001 20:45:33 -0500  
From: Chuck Ludinsky <cjl@mitre.org>  
To: neqrp@jona1.net, qrp-l@lehigh.edu  
Subject: [95169] NEQRP CW Net, Thursday, 29 Mar 01, 9:00PM EST, 3.561 MHz  
Message-ID: <3AC293BC.6499D7B5@mitre.org>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii

Content-Transfer-Encoding: 7bit

The New England QRP Club's WQ1RP CW net meets again Thursday night, 29 March 2001, at 9:00 PM EST (0200Z, 30 Mar 01) on or near 3.561 MHz. Net control operator for this week's 80M session will be Chuck, K1CL, operating from Chelmsford, MA.

Last week's net had an excellent turnout, with a total of 13 folks from eight states and Canada participating. Signal levels for most provided solid, armchair copy. John, WB1HBE, did a great job as network control operator and provided the following summary report for the net:

WB1HBE	JOHN	CHELMSFORD, MA (NET OP)	
AA1MY	SEAB	BETHEL, ME	589
AB8DF	ED	WATERFORD, MI	559
KD1YV	JIM	BETHEL, CT	599 +
K1CL	CHUCK	CHELMSFORD, MA	599+
K1RC	JOHN	DRACUT, MA	599+
K8KFJ	GARY	WV	559
VE3SP	RON	HAMILTON, ONT	559
WA8BXN	MIKE	KIRTLAND, OH	559
AC4QX	RED	NC	559
K1LGQ	DENNIS	BROOKLINE, NH	449
K1PDY	RON	NH	589
NA1XX	MIKE	N. WEYMOUTH, MA	599

With rain and/or snow expected in the Northeast this Thursday night, QRN might be somewhat higher; however, we're still looking forward to generally good conditions on 80M, so please stop by and join in.

72 DE K1CL,  
Chuck

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Date: Wed, 28 Mar 2001 20:31:05 -0500  
From: "Phil (VA3UX)" <phil@vaxxine.com>  
To: qrp-l@Lehigh.EDU  
Subject: [95170] How many radials? (Ribbon Radials & Conductors)  
Message-ID: <3.0.5.32.20010328203105.007add00@vaxxine.com>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

At 09:30 AM 3/28/2001 -0600, you wrote:

>

>It is only my opinion (as an operator and not a scientist) but the seven  
>parallel conductors in a St. Louis Radial-type ribbon do not contribute to

>antenna performance in the same way as seven individual radial wires.

Quite correct.

>However, in spite of the proximity I do not believe they should be  
>categorized as a single or "fat" conductor.  
>

But, a single fat conductor is essentially what it is as far as the antenna is concerned.

>To this civilian the laws of physics apply here. Matter is matter! Without  
>question, the metal is there. Further, in this application the additional  
>wires are positioned in such a way that they can contribute something  
>positive to the performance of a vertical radiator.

But they really aren't positioned in a way to contribute anything positive.

Dave you likely know this but there may be other readers that don't know why the number of radials is important. People asking "how many radials ?" may not understand the fundamentals behind a radial system :

An ideal ground plane or return system for a vertical antenna would be a huge flat circular disk laying on the ground under the antenna. The vertical radiates equally in all directions - all 360 degrees. Therefore a 360 degree ground return is required for optimum performance. But a large flat disk isn't practical at HF and below, so we try to approximate it : we put thin slices of the disk out in all directions, and call them radials. Putting out a wire for each radial degree is a lot of work (360 radials) so our radio pioneers decided to see how much they could reduce the number of radials while still getting close to maximum theoretical performance (by approximating a large flat disk) and thus reduce labor and cost. They found that 120 radials worked nearly as good as a solid continuous disk sheet, and today you'll find 120 radials buried under nearly every AM broadcast tower in the world. The important thing here is that they are spaced equally around the base of the antenna in a 360 degree circle because the RF field radiates from the vertical antenna in a 360 degrees circle. Therefore the antenna is "complete" in all directions. This is why AM broadcast arrays are situated on such large tracts of land - radials take up a lot of real estate (and of course the guy requirements for the towers). { In terms of smaller wavelengths, a 2 meter or 70 cm vertical placed in the middle of car roof is sitting on the ideal ground plane - a large, solid continuous sheet covering all the area around the base of the antenna. }

If these 120 radials were all placed together in a single trench (or on the ground in one bundle like a big ribbon conductor), the amount of RF return current to the vertical would only be a small sliver of the total available

- say 1 or 2 degrees worth out 360 degrees - because that bundle of radials only sees a small sliver of the total 360 degree RF field around the antenna. The remaining RF field striking the ground (rather than a copper wire every few inches or feet) over the remaining 358 or 359 degrees around the base of the antenna is for the most part lost in the "lossy" ground - most of it is unable to return to the base of the antenna.

120 radials is alot of work so most hams will continue to work backwards with the number of radials, reducing the number to save time and labor but still maintaining as many as possible to minimise the loss in performance from the ideal 120 radials. There is no magic figure for the number of radials. I don't know where all these numbers come from that I've seen posted (12 radials, 56 radials, 20-something radials). 4 radials layed out 90 degrees apart (a very crude simulation of the ideal solid flat disk) will outperform 100 radials bundled together laying in a single direction any day of the week - now and forever. But the 4 equi-distant radials would be very poor compared to the same 100 radials layed out in a circle.

This is all well documented in the ARRL Antenna Book and lots of other books. Use as many radials as you can and try to cover as much \*area\* around the base of the antenna as you can. Your ears and your receiver will notice the greatest performance improvements when you double the number of radials. By the time you get up to 50 or 60 radials, you'll realize that your next step for performance improvement will be 100 - 120 radials, so you'll probably just stay with 50 or 60. For portable QRP operation, it likely won't be practical to worry about optimum performance. So you just take as many radials as you're willing to carry or deal with, and leave it at that.

Bear in mind that with a quarter wave vertical, the feedpoint impedance will increase with the number of radials. 120 equally spaced radials will produce a feedpoint impedance \*very\* close to 36 ohms ( the value achieved with a perfect ground plane). A 36 ohm vertical antenna ( a perfect vertical) fed from a 50 ohm system will produce an SWR of close to 1.5:1. That's the best you can get. To further reduce losses in a QRP system you would ideally transform this feedpoint impedance to 50 ohms with 1.5:1 un-un at the base of the antenna.

I get a sense from reading back in the archives that there's not much use in worrying about all the technical mumbo jumbo associated with radials and verticals. Afterall, this is just low power - all that high tech stuff is for the QRO guys and contesters. I would say just the opposite is true : if there's any mode of operation where every effort should be made keep losses to a minimum, its QRP. You haven't got much power to begin with, so you can't afford to lose much. QRP'ers have more reason to learn about the details and employ that knowledge, compared to the guy that's running a pair of 3CX1200's.

Its probably apparent that my background is not QRP; it's just the opposite. But I'm becoming quite interested in QRP from reading this reflector, and I've lost most of zeal for big amps and all that jazz.

I do have a General Radio type 916A RF impedance bridge - the real device required for making complex antenna impedance measurements. It's old, but it works. If as a group you'd like to suggest a particular popular QRP type vertical antenna to be evaluated with various numbers of radials, I could do it this summer. I don't think I'd do this for a common 1/4 or 5/8 wave vertical because that data has been around for years. Let me know if this would be any help. And I have to admit, I don't even know what a St. Louis vertical is.

Phil

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Date: Wed, 28 Mar 2001 18:38:00 -0700 (MST)  
From: "Paul Harden, NA5N" <na5n@rt66.com>  
To: qrp-canada@lists.gpfn.sk.ca, qrp-l@lehigh.edu  
Cc: gqrp@onelist.com, "Prof. Arnaldo Coro Antich" <inforhc@ip.etcasa.cu>  
Subject: [95171] Continued solar activity  
Message-ID: <Pine.SUN.4.10.10103281801030.1738-100000@shell.rt66.com>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

Gang,

The sun has been producing several moderate M-class flares everyday since last weekend. Some of these were accompanied with coronal mass ejections (CME), some of which keep buffeting the earth producing noisy to minor geomagnetic storm conditions.

All of this flare activity is keeping the solar flux quite high, at 273 today, for very good propagation conditions on the higher bands, 20M and above. Lack of activity on 10M right now is due to lack of activity, not conditions. So get on 10M, call CQ and see what happens.

Also on the sun is active region 9393 ... the largest overall sunspot group this solar cycle. It is clearly visable on the sun by viewing it through a welders mask. (Don't look at the sun unless you know you have proper filtering). This area is a beta-gamma group, meaning it has very intense, compact magnetic field lines ... usually the precursor to a major flare. Even an X-class flare (the largest classification) is possible over the next few days. Region 9393 is now right smack in the middle of the sun (on the central meridan facing the earth), meaning any major flare in the next 3 days will smack into the earth dead on, to likely cause a

MAJOR to SEVERE geomagnetic storm and enhanced auroral activity. Also, such a major flare will likely fling copious amounts of protons, traveling nearly the speed of light, at the earth. This always has the potential of causing blackout conditions on HF, extremely active aurora, polar cap absorption events and damage to orbiting satellites. Under extreme conditions, these protons can actually reach the surface of the earth for a proton GLE (ground level event). This will totally trash the D-layer to shutdown HF for awhile, induce large voltages on power lines, pipe lines, etc., including the tops of your head. Personally, I feel a proton GLE is sufficient justification to take the rest of the day off from work sick :-). Although, my boss has yet to buy this story!

This information is presented for those of you interested in the solar phenomenon, HF propagation or wish to observe the northern lights. Obviously if a major flare occurs to trigger these things, I will post it to these groups.

For those interested in seeing this huge active region on the sun (other than through a welders mask!), goto [www.sec.noaa.gov/today.html](http://www.sec.noaa.gov/today.html) The latest photo of the sun is at the top of the page; scroll down a bit to see the charts of the x-ray emissions to detect any recent flares, and down a bit further for a graphic display of the current K-index. Yellow or red bars indicate geomagnetic storm conditions. You'll notice we had several hours today (wednesday) of minor and major storm conditions.

Due to the number of M-class flares (including 4 today from region 9393), I expect the geomagnetic field to experience more storming episodes over the next several days. Geomagnetic storms normally produced high noise levels around 10MHz AND BELOW. It is difficult to predict how many of the CME's from these flares will strike the earth. Satellites can see and image the CME's leaving the sun, because for a time, they consist of very hot gasses and electrons. But once several radii away from the sun, the ejected mass cools down to the temperature of the solar wind and can not be detected by current instruments. The next indication is when the shock wave passes one of the solar platforms in orbit, such as ACE, SOHO, GOES and LASCO satellites. That gives scientists about a 45-minute warning that a shock wave is about to hit the earth.

This is not the end of the world. (Although I'm sure Art Bell will tell you something different tonight -hi). 20M and higher will experience very good propagation due to the elevated solar flux. 30M and below will see periods of bursty noise during the geomagnetic disturbances. Take advantage of the high solar flux on the higher bands right now. 30M is a generally safe band, as it's not highly effected by the solar flux, and seldom bothered by geomagnetic storms. So if things get rotten on the lower bands, get on 30M and work Chuck K7QO. Give him those last few states and countries he needs for WAS/DXCC :-)

72, Paul NA5N

-----  
A few excerpts from today;s daily report:

> Joint USAF/NOAA Report of Solar and Geophysical Activity  
> SDF Number 086 Issued at 2200Z on 27 Mar 2001

> IA. Analysis of Solar Active Regions and Activity from 26/2100Z  
> to 27/2100Z: Solar activity was moderate.

> Region 9393  
> (N17E11) grew significantly in area overnight and maintains a  
> complex beta-gamma-delta magnetic configuration

> IB. Solar Activity Forecast: Solar activity is expected to be  
> moderate to high. Region 9393 has the best potential to produce a  
> major flare.

> IIA. Geophysical Activity Summary 26/2100Z to 27/2100Z:  
> The geomagnetic field was mostly quiet to active. Two different  
> shocks were observed on the ACE spacecraft.  
> This activity was believed to  
> be associated with the CME back on 24 March.

> IIB. Geophysical Activity Forecast: The geomagnetic field is  
> expected to be predominately unsettled to minor storm conditions  
> with isolated major storm conditions possible during the first day  
> of the period. This possible increase in activity is due to the  
> faint full halo CME seen in LASCO/SOHO imagery on 25 March at  
> approximately 1700Z.

> III. Event Probabilities 28 Mar-30 Mar  
> Class M 75/75/75  
> Class X 20/20/20 <--- believe it or not, a 20% chance of a X-class  
> Proton 15/15/15 is quite high  
> PCAF green

> IV. Penticton 10.7 cm Flux  
> Observed 27 Mar 273 <----- today's solar flux  
> 90 Day Mean 27 Mar 161 <----- well above the average

> V. Geomagnetic A Indices  
> Observed Afr/Ap 26 Mar 002/006  
> Estimated Afr/Ap 27 Mar 015/015

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Date: Wed, 28 Mar 2001 20:48:24 -0500  
From: "William Mabry" <n4qa@hotmail.com>  
To: qrp-l@Lehigh.EDU  
Subject: [95172] Re: Warbler receive problem "Shadows"  
Message-ID: <F119kyPzGNsokLQ8aZR0001755e@hotmail.com>  
Mime-Version: 1.0  
Content-Type: text/plain; format=flowed

Hi, Cla and fellow Warbleheads.

I have also experienced the 'multi-single-signal' phenomenon while receiving big sigs on the Warbler, aka PSK-80.

While I haven't spent a whole lot of time looking into this, I am of the opinion that DigiPan, for example, is pretty much displaying that which is presented to it. The SA602 mixer, in its various forms, seems a bit given to delivering spurious mixer products in the presence of very strong 'in-band' and even 'near-band' signals.

I haven't added one yet, but an rf gain control pot is in my Warbler's future.

73,

Bill, N4QA

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Date: Wed, 28 Mar 2001 19:48:10 -0600  
From: Bill Stietenroth <k5zty@juno.com>  
To: n2cx@voicenet.com  
Cc: qrp-l@Lehigh.EDU  
Subject: [95173] Re: [MH101] Crystal Matching [long]  
Message-ID: <20010328.195515.-3894897.0.k5zty@juno.com>  
MIME-Version: 1.0  
Content-Type: text/plain  
Content-Transfer-Encoding: 7bit

If I may quote from Chuck's posting on matching crystals for the Iowa QRP10.

"And before the discussion gets started. It does not matter a hill of beans whether the crystal tester oscillates the crystal in series or parallel mode. You just want all the crystals to oscillate at the same frequency and either mode will do."

What the oscillator test does not do is put a load on the crystal. It may act differently in



a filter than it does in a oscillator, but if it matches closely in the oscillator both in frequency and output voltage, it will probably be close enough for a 500hz filter.

Of course some of you guys that are always splitting frog hairs won't be satisfied.

Bill, K5ZTY  
Houston, TX

-----  
Date: Wed, 28 Mar 2001 19:48:46 -0600  
From: david gauding <david.gauding@bbs.galilei.com>  
To: qrp-l@lehigh.edu  
Subject: [95174] HP3XBH on 14.013 @ 0154Z  
Message-ID: <5.0.2.1.0.20010328194535.0247dec0@bbs.galilei.com>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"; format=flowed

HP3XBH on 14.013 @ 0154Z

599+++ into Midwest - small pile-up - sharp op!

Used 2W from Argo 515 to St. Louis Quickie.

Lots of signals coming up from south tonight. Already tried for but missed J37 and HK3.

Good luck,

de Dave, NF0R      nf0r@slacc.com

-----  
Date: Wed, 28 Mar 2001 18:15:23 -0800  
From: "N7SG K7FD" <k7fd@hotmail.com>  
To: qrp-l@Lehigh.EDU  
Subject: [95175] Re: Continued solar activity  
Message-ID: <F245TrpwACKWHZqYW8B00002c48@hotmail.com>  
Mime-Version: 1.0  
Content-Type: text/plain; format=flowed

...this may be all well and good, but the bands still sound crappy at my shack, especially on 10 and 15 meters. Even keeping an eye on the dxcluster

I'm not seeing the kind of posts that point to stellar condx yet...hopefully the predictions will come true!

73 John K7FD

Paul predicts:

>All of this flare activity is keeping the solar flux quite high, at  
>273 today, for very good propagation conditions on the higher bands,  
>20M and above...

-----  
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-----  
Date: Wed, 28 Mar 2001 22:02:17 -0500  
From: "Alex Turner" <aturner13@triad.rr.com>  
To: <qrp-1@lehigh.edu>  
Subject: [95176] Metal working question.  
Message-ID: <000701c0b7fc\$aa0b9020\$a4611e01@triad.rr.com>  
MIME-Version: 1.0  
Content-Type: text/plain;  
        charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

I think I could do more projects if I had an easy way of making holes in aluminum and some small steel boxes. I usually use the largest drill bit I have then a reamer and or my Dremel tool to get the hole to the right size. Usually all I want is hole for a BNC or an SO-239. Is there an easy way to accomplish this?

Thanks  
Alex Turner - N4BYJ

-----  
Date: Wed, 28 Mar 2001 22:06:10 -0500  
From: "Alex Turner" <aturner13@triad.rr.com>  
To: <qrp-1@lehigh.edu>  
Subject: [95177] ELEKTA software  
Message-ID: <000d01c0b7fd\$348f7680\$a4611e01@triad.rr.com>  
MIME-Version: 1.0  
Content-Type: text/plain;  
        charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

The ad for this software in the latest QEX looks interesting. Has anyone used it and would like to voice an opinion. Keep in mind R.F design is not my vocation so I would be interested in it as a learning tool.  
Thanks in advance.

Alex Turner - N4BYJ

-----  
Date: Wed, 28 Mar 2001 19:47:16 -0700  
From: "T.W." <wb5qyt@abq.com>  
To: <qrp-1@lehigh.edu>  
Subject: [95178] Vibroplex covers, Jones key?  
Message-ID: <MABBIKAEJKMHLIDDGMCKGEGJCGAA.wb5qyt@abq.com>  
MIME-Version: 1.0  
Content-Type: text/plain;  
        charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

Gang,

Does anyone know who makes covers for any of the keyers? Have a couple of Vibroplex bugs that and want to keep the dust off of them. If not, guess I could make something out of some plexiglass that would work.

I have a Jones Key, red base dual paddle keyer. Wonder what would be a fair price?

72, Tom WB5QYT....."Have spud will travel!"

-----  
Date: Wed, 28 Mar 2001 20:06:24 -0700  
From: "Rod Cerkoney" <n0rc@hotmail.com>  
To: na5n@rt66.com, qrp-1@Lehigh.EDU  
Subject: [95179] Re: Continued solar activity  
Message-ID: <F136PZrIkyPzGNsokLQ0000cc66@hotmail.com>  
Mime-Version: 1.0  
Content-Type: text/plain; format=flowed

Paul, et.al.

>From: "Paul Harden, NA5N" <na5n@rt66.com>  
>Reply-To: na5n@rt66.com  
>To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>

>Subject: Continued solar activity  
>Date: Wed, 28 Mar 2001 18:38:00 -0700 (MST)

>All of this flare activity is keeping the solar flux quite high, at  
>273 today, for very good propagation conditions on the higher bands,  
>20M and above. Lack of activity on 10M right now is due to lack of  
>activity, not conditions. So get on 10M, call CQ and see what happens.  
>

And 12m too! I put my rig on "CQ autopilot" yesterday for about 1 hour,  
calling CQ every 10-15 seconds @24906kHz, not a single call did I receive!

73, Rod NØRC  
Fort Collins, CO

-----  
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-----  
Date: Wed, 28 Mar 2001 20:11:08 -0500  
From: "ZOOM" <kandrparker@sympatico.ca>  
To: <aturner13@triad.rr.com>, "Low Power Amateur Radio Discussion" <qrp-  
l@Lehigh.EDU>  
Subject: [95180] Re: Metal working question.  
Message-ID: <006b01c0b7ed\$232da520\$3294fea9@robertpa>  
MIME-Version: 1.0  
Content-Type: text/plain;  
        charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

Yes!

Get a Nibbler attachment for your electric drill. I bought one off of e-bay  
and they work excellent. Drill just one 1/2inch hole for the nibbler tip  
and you can cut any shape you want in sheet metal, plastic etc.

Cheers,  
Robert  
VE3RPF

----- Original Message -----  
From: "Alex Turner" <aturner13@triad.rr.com>  
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>  
Sent: Wednesday, March 28, 2001 10:02 PM  
Subject: Metal working question.

> I think I could do more projects if I had an easy way of making holes in  
> aluminum and some small steel boxes. I usually use the largest drill bit I  
> have then a reamer and or my Dremel tool to get the hole to the right  
size.  
> Usually all I want is hole for a BNC or an SO-239. Is there an easy way to  
> accomplish this?  
>  
> Thanks  
> Alex Turner - N4BYJ  
>

-----  
Date: Wed, 28 Mar 2001 22:12:48 EST  
From: K5BDZ@aol.com  
To: qrp-l@lehigh.edu  
Subject: [95181] Ribbon Radials and reality  
Message-ID: <f4.8774e3a.27f40230@aol.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset="US-ASCII"  
Content-Transfer-Encoding: 7bit

Well, I think it's getting there on the various Ribbon Radials threads.

The Ribbon Radial is practical reality, based on real-world-actually-built, repeatable construction working examples of a good, simple, easy to make, easy to use working radial system

vs

"In Theory" and "These Books Say" and "The Perfect System Should Be..."

Dave Gauding and Doug Hendricks are quick to point out the actual functioning (NOT test bench equipment & IEEE theory) system - and how well it works. They are nicely trying to get folks to build and use a simple system such as the ribbon radials.

If you want to operate, build your own tried and proven Ribbon Radial system. Then, as you tire of operating, pull up a book and figure out how it theoretically works later.

If you want a good portable vertical to go with the system, build the St Louis Vertical, also originated by Dave Gauding N4FOR. I have the version I built and it's working extremely well, which is a surprise to my "theorists friends" and, not surprisingly, is only of copy of those built by my "let's build it and see if it works" friends.

True, you can't fail if you don't try.  
Psssst - you also can't succeed unless you try either.

When you build yours let us know IF it works. We won't ask you "how" it works, just IF it works.

The Never Opinionated, Never Flustered, Absolutely Perfect, Charter Member of R.O.O.F. Expert on All things muttered, thought or conceived:  
Bill K5BDZ

-----  
Date: Wed, 28 Mar 2001 18:39:42 -0600  
From: Nick Kennedy <nkennedy@tcainternet.com>  
To: "'n2cx@voicenet.com'" <n2cx@voicenet.com>, Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>  
Subject: [95182] RE: [MH101] Crystal Matching [long]  
Message-ID: <01C0B7B6.7452FAE0.nkennedy@tcainternet.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"  
Content-Transfer-Encoding: 7bit

Good info, Joe.

That series Vs. parallel thing is most confusing for me. Sad to say, I can't just look at a circuit and tell if it's using the crystal in the series or parallel mode. I'd generally think that if the xtal is coming from the output to the input, it would be series mode. And if shunting the input, it'd be parallel. But in the '98 Handbook, I see a circuit (fig 14.24a) that has the crystal from base to ground. I'd have sworn that has to be parallel mode, but per the text it's series.

The handbook also says, "The series mode is now the most common; parallel-mode operation was more often used with vacuum tubes." So I guess, think series until proven otherwise.

Crystal circuits drive me nuts. These circuits to trim or pull the frequency never seem to work as designed. I guess part of the problem is that we tinkerers are generally using surplus crystals and don't know for sure what the heck we've got.

72--Nick, WA5BDU

-----Original Message-----  
From: n2cx@voicenet.com [SMTP:n2cx@voicenet.com]

Guys,

Not to make too fine a point of it, but you have to use the \*correct\* type of crystal oscillator to match crystals for the filters Chuck is talking about. As Chuck points out there is both a series and resonant frequency for the xtals.

-----  
Date: Wed, 28 Mar 2001 20:25:57 -0800  
From: "John Moriarity" <k6qq@hdo.net>  
To: <K5BDZ@aol.com>, "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>  
Subject: [95183] Re: Ribbon Radials and reality  
Message-ID: <004401c0b808\$5ace69e0\$82414cd1@k6qq>

> When you build yours let us know IF it works. We won't ask you "how" it works, just IF it works.

Anything "works".

72,

John, K6QQ

-----  
Date: Wed, 28 Mar 2001 22:35:51 -0600  
From: david gauding <david.gauding@bbs.galilei.com>  
To: qrp-l@lehigh.edu  
Cc: phil@vaxxine.com  
Subject: [95184] Re: How many radials? (Ribbon Radials & Conductors)  
Message-ID: <5.0.2.1.0.20010328205929.02479290@bbs.galilei.com>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"; format=flowed

Hello Phil,

What an exceptionally interesting and educational post about radials. And, a lengthy undertaking as well. I'm sure my comments are shared by many others on QRP-L. In any case, I think it safe to say this group is glad you are now here.

Jumping in towards the end of your comments, yes the importance of a

responsive antenna is even more vital when low power is being considered. Which is one reason why we read so many posts here on the subject. On the other hand, the inherent portability of low power amateur radio means it is commonplace to set-up antennas in portable locations and enjoy the outdoors. At times finding an ideal spot with creature comforts means antenna siting may be compromised. But, you do what you can with what is available based on the logistics.

My main interest is portable antennas and has been for almost twenty years. As a cliffdweller during most of that time it gave me opportunities to put up a real antenna in the sunlight and enjoy using something a little better than my indoor wires. The chance to use something vertically polarized was a plus too.

The original St. Louis Vertical grew out of my pastime and is still posted on the NorCal website. It's a simple concept with the primary purpose to make a few contacts on low power while running portable. Have some fun in the sun and all that. With this in mind it transports easily thanks to its collapsible fiberglass fishing pole support. Installation (and retrieval) of the antenna and its accessories is a painless process.

The SLV is also easy to reproduce, inexpensive and even in the simplest form will work stations. The latter being an important consideration! <g> On the negative side it is not a highly refined design nor does it meet the expectations of more advanced hobbyists. A friend calls it a "starter vertical" and I think that is a fair choice of semantics. Must tell you that I know longer use the prototype SLV (c. 1996) these days having moved on to new designs that come closer to meeting my own expectations.

Coming back to radials, I run the minimum number under portable verticals that will provide reasonable performance when balanced against convenience in the field. Especially for short-term operating when the percentage of time devoted to antenna activities expands to a significant amount of the time available. Lots of trade-offs going on here.

This is why St. Louis Radials or ribbon-type radials evolved. Compared to a single strand of wire, they install quickly, retrieve quickly and store in very limited space. For hikers and backpackers in particular, they can be quite helpful. On the negative side they are much heavier than single wires so all that convenience comes at a price.

Re QRP, I do hope you get into it. Low power (and homebrew) is a unique part of the hobby and there are so many different directions to be pursued. It's real damn hard to get bored with QRP or for that matter with QRP-L.

Have fun OM and again thanks so much for bringing a little more light to vertical antenna systems for all of us.



TTUL

de Dave, NF0R      nf0r@slacc.com

-----  
Date: Wed, 28 Mar 2001 23:47:30 EST  
From: FrConrad@aol.com  
To: qrp-1@lehigh.edu  
Subject: [95185] Extreme Foxhunt  
Message-ID: <2f.13018cc9.27f41862@aol.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset="US-ASCII"  
Content-Transfer-Encoding: 7bit

I gonna try to put a "classic" station on the air. SW-40 Elmer  
Special@2watts, ZM-2 Tuner, Norcal Key and a half wave of wire in a tree.

What is the Foxhunt exchange?

John+

-----  
Date: Thu, 27 Mar 2008 21:10:52 -0800  
From: KB7WW Art Moe <kb7ww@chatusa.com>  
To: aturner13@triad.rr.com  
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>  
Subject: [95186] Re: Metal working question.  
Message-ID: <47EC7DDC.67D26392@chatusa.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Alex  
Look for Unibit. They work great.

<http://www.unibitstepdrill.com/pi/toolsrch.asp>

Art  
KB7WW

Alex Turner wrote:

>  
> I think I could do more projects if I had an easy way of making holes in  
> aluminum and some small steel boxes. I usually use the largest drill bit I  
> have then a reamer and or my Dremel tool to get the hole to the right size.  
> Usually all I want is hole for a BNC or an SO-239. Is there an easy way to  
> accomplish this?  
>  
> Thanks  
> Alex Turner - N4BYJ

-----  
Date: Thu, 29 Mar 2001 00:17:50 EST  
From: Macstein@aol.com  
To: qrp-1@lehigh.edu  
Subject: [95187] Re: Ribbon Radials and reality  
Message-ID: <d5.454d513.27f41f7e@aol.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset="US-ASCII"  
Content-Transfer-Encoding: 7bit

This thread is STILL interesting to me (each time it comes up!) I learn from both camps. I'm one who just built a rig, stuck some wire up and got on the air, then have spent the rest of my ham career "tweeking" and experimenting!

Yes, almost "anything works". (DXCC with the Infamous Attic Dipole was a challenge, but that just inspired me!) I will say that I can work Dave G. on his experimental verticals almost anytime he is in the air from here in FL. They just plain work -- and well! Sometimes he is 559, other times 599! He always sends a "HI HI" because he knows I'm listening for him to give him a report! But I have and use three versions of the St. Louis Vertical/Express/Loop, and take them with me on hikes, and when portable in other ways. Doug H. inspired me to try these ribbon radials when he was experimenting with them. I also like Joe Everhart's Gushers! I also like to sneak down to the Tampa ARClubhouse and use that big beam! One day, I'd like to visit Tom Whiteside in Texas and use those monster antlers! But I enjoy, just as much, sitting on a balcony while at the beach working Rumi LZ2RS with a Hamstick clamped to the rail.

I am trying to learn more about feedlines, baluns, and radials, so I like this thread. I appreciate Dr. Megacycle, L.B., Glenn L., Phil and others who share what they know. I've bought Maxwell's books, I'm reading articles and

learning to the best of my ability... but in the MEANTIME... I'm on the air with what I have.

-MAC-  
AF4PS

-----  
Date: Thu, 29 Mar 2001 00:23:01 -0500 (EST)  
From: <igeq100@iupui.edu>  
To: Alex Turner <aturner13@triad.rr.com>  
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>  
Subject: [95188] Re: Metal working question.  
Message-ID: <Pine.GS0.3.96.1010329001655.13544A-1000000@jade.iupui.edu>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

Hi, Alex-

I know of two solutions to your problem. Black and Decker make drill bits that they call Bullet Drills (I think that they are also called pilot-point drills by other makers). They make a clean hole in sheet metal and do not have a tendency to wander as you start the hole. For larger holes you can use what is called a titanium step drill bit. This is a conical bit that increases in diameter by 1/16 inch steps every 1/8 inch; mine ranges from 1/4 inch to 3/4 inch. They are available from Sears, etc. (cost about \$30, but worth it if you do much panel drilling.)  
Hope this helps.

72/73

Rich Meiss, WB9LPU  
Speedway, IN

On Wed, 28 Mar 2001, Alex Turner wrote:

> I think I could do more projects if I had an easy way of making holes in  
> aluminum and some small steel boxes. I usually use the largest drill bit I  
> have then a reamer and or my Dremel tool to get the hole to the right size.  
> Usually all I want is hole for a BNC or an SO-239. Is there an easy way to  
> accomplish this?  
>  
> Thanks  
> Alex Turner - N4BYJ  
>  
>

-----

Date: Thu, 29 Mar 2001 00:23:36 -0500  
From: Kenneth Hoglund <hoglund@wfu.edu>  
To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>  
Subject: [95189] 10 Meter Conditions  
Message-ID: <3AC2C6D8.941EBB1F@wfu.edu>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

First let me say I read NA5N's solar updates with great attention. Paul has been so great to share both the reports themselves and what they mean for propagation conditions that I've learned much from them.

With the current solar flux at such high levels, I've had great expectations about hitting all those yet-to-be-worked states for QRP WAS. Got the 10m dipole on-line, tuned up yesterday at mid-day to a mighty 5 watts out on SSB and listened. Very little activity from anywhere was heard. The first cq I heard was Yugoslavia, and I worked the "Radio Klub N Telsa" station, receiving a 55 report for my 5 watt signal---not too shabby! But other cq's either couldn't hear me, or ignored a weak sig. And there were not many on.

Late this afternoon got on and called cq bunches of times with no response. Also did not hear anyone calling cq, but did hear a fair amount of activity on the band, though conditions did not sound great. Finished some routine activities about 1:00 UTC, long after sundown, and for fun turned on the rig. To my surprise, there were some big signals very clearly received, including a British Columbia station calling for any South Pacific; a Bakersfield CA op talking to a midwestern op, and a San Paulo Brazil station working several US ops. I called cq frequently with no takers, but I don't think I've seen the band open this late after sundown.

The long and the short of it is the solar flux levels are creating some unusual conditions. These may not fit with expectations, but it sure is interesting. I'm hoping to be on in the morning hours tomorrow to see what Europe is like.

73

Ken KG4FGC

-----  
Date: Wed, 28 Mar 2001 22:17:41 +0000  
From: Russ Dow <n7dw@pacbell.net>

To: wb5qyt@abq.com  
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>  
Subject: [95190] Re: Vibroplex covers, Jones key?  
Message-ID: <3AC26305.90CF7CB7@pacbell.net>  
MIME-version: 1.0  
Content-type: text/plain; charset=us-ascii  
Content-transfer-encoding: 7bit

Hi Tom,

Check <http://www.vibroplex.com> , scroll down and click Accessories. There you will find key cases and dust covers.

It's been 30 years since I owned a bug, but back then Vibroplex also sold carrying cases for their bugs. I had one, made of wood with leatherette covering, carrying handle on top, and one end was hinged like a lid with some kind of latch. Inside they were lined with felt, and I think they also had inserts to ensure a snug fit. Those cases were first class goods. It looks as if they have even better stuff today.

I think nearly all commercial CW ops had their own bugs, and many of them probably carried them between home (or locker) and the operating position in cases like these. I wasn't a pro - far from it - but I carried my bug from place to place snug and secure.

73,  
Russ N7DW

"T.W." wrote:

> Gang,  
>  
> Does anyone know who makes covers for any of the keyers? Have a couple of  
> Vibroplex bugs that and want to keep the dust off of them. If not, guess I  
> could make something out of some plexiglass that would work.  
>  
> I have a Jones Key, red base dual paddle keyer. Wonder what would be a fair  
> price?  
>  
> 72, Tom WB5QYT....."Have spud will travel!"

-----  
Date: Thu, 29 Mar 2001 07:33:15  
From: "Leon Heller" <leon\_heller@hotmail.com>

To: aturner13@triad.rr.com, qrp-l@Lehigh.EDU  
Subject: [95191] Re: Metal working question.  
Message-ID: <F391vX6D96doCekp8tg00003e54@hotmail.com>  
Mime-Version: 1.0  
Content-Type: text/plain; format=flowed

>I think I could do more projects if I had an easy way of making holes in  
>aluminum and some small steel boxes. I usually use the largest drill bit I  
>have then a reamer and or my Dremel tool to get the hole to the right size.  
>Usually all I want is hole for a BNC or an SO-239. Is there an easy way to  
>accomplish this?

At work we use Conecuts for making large holes. They look a bit like a  
tapered reamer, and are used in a pillar drill.

73, Leon

--  
Leon Heller, G1HSM Tel: (work): +44 1327 357824 (home): +44 1327 359058  
Email:leon\_heller@hotmail.com My web page:  
[http://www.geocities.com/leon\\_heller](http://www.geocities.com/leon_heller) IRISYS Ltd: <http://www.irisys.co.uk>

---

Get Your Private, Free E-mail from MSN Hotmail at <http://www.hotmail.com>.

-----  
Date: Wed, 28 Mar 2001 23:34:39 -0800  
From: John Rollins <kd7bcy@teleport.com>  
To: QRP-L <qrp-l@lehigh.edu>  
Subject: [95192] SMK-1 photos  
Message-ID: <a05010400b6e8954bb059@[216.26.60.198]>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii" ; format="flowed"

I've put up some photos on my web site. I didn't want to wait for the  
NJ-QRP case, so I made my own. I might leave it in there! Of course  
then I'll need another SMK-1 for the NJ-QRP case... :-) You can't get  
to it from the main page, so here's the URL:  
<http://members.tripod.com/~jrollins/smk.html>  
If you have any problems with that(images or links not working,  
etc...) let me know and then try this page:

<http://members.tripod.com/~jrollins/smk2.html>

Hopefully I'll get to try it out on the air soon. Next project is an antenna...

--

```
/-----\  
|  http://jrollins.tripod.com/          |  
|  KD7BCY      kd7bcy@teleport.com      |  
\-----/
```

-----

Date: Thu, 29 Mar 2001 00:42:41 -0700  
From: "Marshall Emm" <mgemm@mtechnologies.com>  
To: FrConrad@aol.com, qrp-1@lehigh.edu  
Subject: [95193] Re: Extreme Foxhunt  
Message-ID: <3AC28501.4031.33A30C9@localhost>  
MIME-Version: 1.0  
Content-type: text/plain; charset=US-ASCII  
Content-transfer-encoding: 7BIT

>>.What is the Foxhunt exchange?<<

Same as in the regular hunt-- RST, SPC, Name, and Power.

Foxes will either call CQ FOX or sign /FOX, or both.

Have fun!

Marshall Emm, N1FN  
Milestone Technologies, Inc.  
(303) 752-3382  
<http://www.mtechnologies.com>

-----

Date: Thu, 29 Mar 2001 07:00:19 -0500  
From: "Phil (VA3UX)" <phil@vaxxine.com>  
To: "John Moriarity" <k6qq@hdo.net>  
Cc: qrp-1@Lehigh.EDU  
Subject: [95194] Correction --> How many radials? (Ribbon Radials & Conductors)  
Message-ID: <3.0.5.32.20010329070019.007aa920@vaxxine.com>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

At 08:22 PM 3/28/2001 -0800, you wrote:

>> Bear in mind that with a quarter wave vertical, the feedpoint  
>impedance

>> will increase with the number of radials.

>        ^^^^^^

>Hi Phil,

>

>I think you meant to say "decrease\*.

>

Oops ! You're right John. Feedpoint impedance does DECREASE with the number of radials, and it approaches 36 ohms as the number of radials approaches 120. I recall now that while writing that post I paused for a moment to think about the radiation resistance of shortened verticals (which is below 36 ohms) and I ended up with a different curve in my head (the wrong one) when I wrote that part.

Thanks for pointing out my foible

Phil

>73,

>

>John, K6QQ

>(I used to get \*paid\* to design antennas. Gee, that was fun!)

>

>

>

>

>

-----

Date: Thu, 29 Mar 2001 08:20:56 EST

From: K5BDZ@aol.com

To: k6qq@hdo.net, K5BDZ@aol.com, qrp-1@lehigh.edu

Subject: [95195] Re: Ribbon Radials and reality

Message-ID: <93.8e65cbc.27f490b8@aol.com>

MIME-Version: 1.0

Content-Type: text/plain; charset="US-ASCII"

Content-Transfer-Encoding: 7bit

In a message dated 03/28/2001 10:25:14 PM Central Standard Time, k6qq@hdo.net writes:

<< Anything "works".

72,

John, K6QQ >>



In just two words, John nailed me with a Bulls Eye!  
Good response John.  
Bill K5BDZ

-----  
Date: Thu, 29 Mar 2001 06:27:22 -0700 (MST)  
From: "Karl F. Larsen" <k5di@zianet.com>  
To: <qrp-1@lehigh.edu>  
Subject: [95196] Laptop batteries  
Message-ID: <Pine.LNX.4.31.0103290613480.832-100000@cannac.ampr.org>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

Two years ago I bought a used IBM 365XD laptop that's a jewel of a computer. Nice color screen, 26 meg of ram and I bought a 4 gig hard drive for it. Has a pentium 1 processor.

The battery was bad when I got the computer. To this day I have resisted paying \$135.00 for a computer battery. So yesterday afternoon I had the bad battery pack out on the bench and noticed there were small places you can put a screwdriver blade into the edge of the plastic box the battery is made of. With care, taking 15 minutes I worked the top off the battery box. Inside are 7 1.2 volt 4/3 A size batteries that are rated at 2.8 Amp-Hours.

I took all the bad batteries out and went to Mouser on the internet. After much searching and d/l a page of their manual, I found the closest match; 2.4 Amp-Hour batteries Stock Number 639-HR-AUX which I ordered for under \$40.00!

The new batteries are slightly smaller than the originals so getting all 7 in will be simple. Solder 3 wires and I'm portable with my laptop for the first time.

Yours Truly,

- Karl F. Larsen, k5di@arrl.net (505) 524-3303 -

-----  
Date: Thu, 29 Mar 2001 15:25:28 +0200  
From: Alen Mitrovic <alen.mitrovic@hermes.si>  
To: GQRP <qrp@yahooogroups.com>, Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>

Subject: [95197] Looking for Crystal source  
Message-ID: <FED7EB450413D511ABC100B0D021173266F8AA@ha19000.hermes.si>  
MIME-Version: 1.0  
Content-Type: text/plain;  
charset="iso-8859-1"

Hi  
I am looking for Crystal source;  
18.063,2 MHz 10  
26.480MHz  
Pieces each

does anyone know reliable Crystal source?

72 de Alen / S53MA  
> -----  
> Alen Mitrovic  
>  
  
> Personal Web Page : <http://www.qsl.net/s53ma/>  
> -----  
>  
>

-----  
  
Date: Thu, 29 Mar 2001 08:29:03 -0500  
From: Rick Robinson <rrobin@email.uncc.edu>  
To: lejek@erols.com  
Cc: qrp-1@lehigh.edu, ;;k2@nss4.cc.lehigh.edu  
Subject: [95198] Re: Battery Comparisons on the K1 - Alkaline vs NiMH  
Message-ID: <v03102800b6e8e4e38953@[152.15.144.71]>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

Larry WD3P writes;

>Over the last two weekends I managed to do a semi-controlled comparison of  
>the alkaline and the NiMH AA batteries with my K1.

Larry,

Thanks for the great post and for sharing your battery information. That's exactly the kind of info that I know I've been looking for.

The NiMHs in a 10 battery holder seem to be the best overall solution for a

weekend of operating.

What do you use for a dummy battery when using alkalines?

72,

Rick kf4ar

-----  
Date: Thu, 29 Mar 2001 05:49:53 -0800 (PST)  
From: Curt Milton <wb8yyy@yahoo.com>  
To: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>  
Subject: [95199] Re: [MH101] Crystal Matching  
Message-ID: <20010329134953.86599.qmail@web9603.mail.yahoo.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii

Just a quick clarification - yes the receiver needs to be one that does not drift during the measurement time - in my case i used a low end commercial transceiver.

But I can testify that trying to match crystals by tuning the dial to your favorite CW pitch does not work (unless you have a 100 Hz filter installed). It best to measure your crystals first to find a reference that's somewhere in the middle - and then leave the receiver tuned to that spot! Then compare the other crystals to that tone. I suspect most of us can get within 100 Hz. If you need better performance - then find a frequency counter. We should all continue to build and experiment with what resources we have.

I don't have a lot of professional experience with crystal filters - but the two resonances are generally close to each other. It would be interesting data to see if indeed they closely track each other.

curt wb8yyy  
--- Don Wilhelm <w3fpr@arrl.net> wrote:  
> Folks,  
> I don't want to diminish what Jim said, but if you  
> use a receiver to match  
> your crystals, just be certain of it's stability.

> Keep in mind that you can  
> check it - measure 5 or 10 crystals (remembering  
> which was the first one),  
> then plug the first one measured back in - the  
> reading should be the same as  
> before, if not, do some frequency stability  
> checking.  
> 73,  
> Don Wilhelm -Chapel Hill, NC W3FPR home page:  
> <http://www.w3fpr.webprovider.com>  
> QRP-L # 485 K2 SN 0020 [mailto: w3fpr@arrl.net](mailto:w3fpr@arrl.net)  
>  
> ----- Original Message -----  
> From: <n5ib@juno.com>  
> To: "Low Power Amateur Radio Discussion"  
> <qrp-l@Lehigh.EDU>  
> Sent: Wednesday, March 28, 2001 2:03 PM  
> Subject: Re: [MH101] Crystal Matching [long]  
>  
>  
> > On Mon, 26 Mar 2001 05:59:34 -0800 (PST) Curt  
> Milton <wb8yyy@yahoo.com>  
> > writes:  
> > >>what i did was to build a one transistor xtal  
> > >oscillator (i can't remember which type - but if  
> > you  
> > >e-mail me i will let you know) and leave out the  
> > xtal  
> > >- putting a pair of alligator clips in its place  
> > for  
> > >measuring the available crystals.  
> > >  
> > >tune your receiver to the xtal frequency,  
> > listening  
> > >for the CW note. don't touch the dial because  
> > you  
> > >won't be able to tune the for the resonance  
> > accurate  
> > >enough unless you have a 100 Hz filter in your  
> > rig.  
> > >what i did was to select a set of crystals with  
> > the  
> > >closest note. that is tune the receiver to a  
> > >reference crystal - and find xtals that match the  
> > >note. i believe i was able to get xtals within  
> > 100 Hz  
> > >of each other using this technique  
> >

-----  
Do You Yahoo!?  
Get email at your own domain with Yahoo! Mail.  
<http://personal.mail.yahoo.com/?refer=text>  
-----

Date: Thu, 29 Mar 2001 08:59:49 -0500  
From: Thomas Jennings <jennings@shell1.eznet.net>  
To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>  
Subject: [95200] Huge Sun Spot  
Message-ID: <20010329085949.A7772@shell1.eznet.net>  
Mime-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Disposition: inline

Space Weather News for March 29, 2001  
<http://www.spaceweather.com>

HUGE SUNSPOT: The largest sunspot in ten years is crossing the solar disk. The fast-growing spot, called AR9393, covers an area of the Sun equivalent to the total surface area of 13 Earths! Visit [spaceweather.com](http://spaceweather.com) to learn how this sunspot compares to others in history and how to safely observe it.

AURORA ALERT: An eruption near sunspot AR9393 hurled a coronal mass ejection toward Earth on Wednesday. Forecasters estimate a 15 to 25% chance of severe geomagnetic storms when the expanding cloud buffets our planet's magnetic field, most likely on Friday.

For more information and updates, please visit <http://www.spaceweather.com>

-----  
Date: Thu, 29 Mar 2001 09:53:58 -0500  
From: Pete Burbank <plburbank@kih.net>  
To: aturner13@triad.rr.com, "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>  
Subject: [95201] Re: Metal working question.  
Message-ID: <5.0.2.1.0.20010329094631.00a79e20@KIH.net>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"; format=flowed

For S0-239s a 5/8 inch Greenlee punch works great. Try your local electrical

supply dealer.  
73 Pete NV4V

-----  
Date: Thu, 29 Mar 2001 10:03:33 -0500  
From: "Mike Yetsko" <myetsko@insydesw.com>  
To: <plburbank@kih.net>, "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>  
Subject: [95202] Re: Metal working question.  
Message-ID: <001901c0b861\$c8223f40\$6101a8c0@INSYDENT>  
MIME-Version: 1.0  
Content-Type: text/plain;  
        charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

> For S0-239s a 5/8 inch Greenlee punch works great. Try your local  
> electrical supply dealer.  
> 73 Pete NV4V

I missed the original of this... But don't rule out a good 'step drill'  
for working aluminum chassis. As long as the hole is round, they  
are great.

They look like stepped cones. Or more like a stack of disk with a  
slot down the side (as the cutting edge.)

They are available in a variety of 'granularities' (i.e. step rate) and  
sizes.

A caveat... If you try to use them manually in even thick aluminum,  
they generally can 'get away from you' and dig the next ring, or at  
least make a serious gouge, so you have to be quite careful when  
you apply pressure, as they can suddenly 'burst through' and start  
on the 'next level' kind of thing. On a drill press they just work so  
sweet.... They don't 'pull' like a regular drill bit does with the  
spiral  
groove, but they do tend to suddenly 'break through' and if you're  
pressing with your drill...

They are not cheap, with some medium quality ones in the \$40 range,  
but a heck of a lot cheaper than even a poor punch.

Mike

-----

Date: Thu, 29 Mar 2001 09:32:08 -0700 (MST)  
From: "Paul Harden, NA5N" <na5n@rt66.com>  
To: qrp-canada@lists.gpfn.sk.ca, qrp-1@lehigh.edu  
Cc: gqrp@onelist.com, "Prof. Arnaldo Coro Antich" <inforhc@ip.etcusa.cu>  
Subject: [95203] X-class flare 1000UTC 29MAR  
Message-ID: <Pine.SUN.4.10.10103290919410.505-1000000@shell.rt66.com>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

Gang,

There was a MAJOR FLARE today ... an X2 from 0957-1015UTC 29MAR 2001 from region 9393 on the center on the sun. This flare produced a large coronal mass ejection (CME) which will undoubtedly hit the earth fairly directly sometime saturday morning (North America) triggering a MAJOR geomagnetic storm. NOAA is currently predicting a 15-20% chance of a SEVERE geomagnetic storm. This flare is also still producing energetic protons, which is now causing high HF absorption in the higher latitudes, and will migrate southward as the proton event continues.

This could trigger auroral displays into the lower latitudes. For a map showing approximately the southern limit of where the aurora could be seen, as a function of the resulting K-index, goto:

[www.sec.noaa.gov/Aurora/globeNW.html](http://www.sec.noaa.gov/Aurora/globeNW.html)

This is for North America. For QRPers in other areas, goto:  
[www.sec.noaa.gov/Aurora/](http://www.sec.noaa.gov/Aurora/)  
scroll down a bit and click on your area of the world.

The proton event can also cause the aurora to extend farther south than that shown on the map.

The CME and shockwave from an earlier M class flare should hit the earth late friday as well.

72, Paul NA5N

-----  
Date: Thu, 29 Mar 2001 09:40:03 -0800  
From: Bob Welch <p326@earthlink.net>  
To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>  
Subject: [95204] Were Is Dave Fifield

Message-ID: <3AC37373.7D2D01D6@earthlink.net>

MIME-Version: 1.0

Content-Type: text/plain; charset=us-ascii

Content-Transfer-Encoding: 7bit

Hi guys, has any one heard from Dave in the last Month or so. Another ham and myself have sent him several e-mails going back to mid February and a check for a Red Hot 40 but we have never received a reply .

Is he ok, still in business or maybe on vacation. Any one Know?

Thanks,

Bob

-----  
Date: Thu, 29 Mar 2001 17:42:26 -0000

From: "Tom Dufresne" <tdufres@hotmail.com>

To: qrp-l@lehigh.edu

Subject: [95205] CW for HTX-10

Message-ID: <F4BQdWfFMVpHgLVbxZ00013e8a@hotmail.com>

Mime-Version: 1.0

Content-Type: text/plain; format=flowed

I got my CW coder for my HTX-10 finished last weekend. As others have suggested, I just "got it going" instead of taking too much time debugging and theorizing. Actually, I have already made three contacts with minimal effort, two with Florida, and getting "7"s and "9"'s so far for tone reports. I put it together using my limited skills with CIRCAD, schematics and everything, with emphasis on LIMITED (wink). I made a small amp and use it for a sidetone. Having some problems, mostly with sidetone, but will debug/tinker with it later. Gotta move on! Next step is make it small enough to fit into an Altoids Tin! Thanks Jim, N5IB for all your assistance! See the beast at

<http://www.radiks.net/~tdufres/coder.html>.

Naturally I welcome any/all ideas, criticism, comments and slings and barbs. I hope my efforts will inspire others to use this great little rig for 10 meter CW.

Tom

KC0GXX

-----  
Get your FREE download of MSN Explorer at <http://explorer.msn.com>



-----  
Date: Thu, 29 Mar 2001 09:50:33 -0800  
From: "Bob Tellefsen" <n6wg@earthlink.net>  
To: <qrp-1@Lehigh.EDU>  
Subject: [95206] Re: Metal working question.  
Message-ID: <00ac01c0b878\$c19aae20\$4bddfc9e@oemcomputer>  
MIME-Version: 1.0  
Content-Type: text/plain;  
        charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

Mike

When I use my step drill, I put a piece of masking tape around it at the top of the diameter I want to end with.

This gives me a visual reference when I'm getting close, and I've never overshot with this yet.

73, Bob N6WG

-----  
Date: Thu, 29 Mar 2001 11:46:11 -0600  
From: "Dan W. Dooley" <dandooley@pipeline.com>  
To: "QRP List" <qrp-1@Lehigh.EDU>  
Subject: [95207] OT: Radio opinion  
Message-ID: <010701c0b878\$be5fa760\$0300a8c0@bergenbrunswick.com>  
MIME-Version: 1.0  
Content-Type: text/plain;  
        charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

Anyone have any first hand (or even second hand) knowledge or experience with the new Kenwood TS-2000 transceiver?

Pretty much decided on it as my next radio.

One question I have not been able to get answered concerns the QSK features. Can't seem to find out if it uses relay or solid state switching. Anyone know?

Dan W. Dooley WB5TKA Bedford, Texas EM12ku  
e-mail to: dandooley@pipeline.com  
Web site: <http://www.qsl.net/wb9tka>  
SOC #198, FPQRP # -104  
May Goddes love blest ye alle  
"Ancient Pistol, I do partly understand your meaning."

-----  
Date: Thu, 29 Mar 2001 10:25:51 -0800  
From: "Alan Kaul" <alan.kaul@worldnet.att.net>  
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>  
Subject: [95208] Sunspots and band conditions -- outstanding!  
Message-ID: <003101c0b87d\$b13c0f60\$4900500c@default>  
MIME-Version: 1.0  
Content-Type: text/plain;  
        charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

Despite an A-index of 25 this morning, propagation on 15M was terrific from the West Coast to India around 9am PST. One contact on SSB and one on CW. I couldn't make it QRP -- had to increase power to 100W. It was several hours after sunset in VU2-land....around 10:30pm in Bangalore and Kerala.

15M was hot last night, too. Worked H40 (Temotu) and TX (Chesterfield) long after sunset in Los Angeles (around 830 pm). I heard W6ZH/qrp work him, too.

Alan Kaul, W6RCL, LaCanada, CA  
w6rcl@amsat.org , <http://home.att.net/~alan.kaul/index.html>

-----  
Date: Thu, 29 Mar 2001 10:59:17 -0800  
From: "Doug Hendricks" <ki6ds@dph.dpol.net>  
To: <qrp-l@lehigh.edu>  
Subject: [95209] NorCal Toroid Kit Shipping Status  
Message-ID: <01c0b882\$5b0fdf40\$330b0d0a@doug.dph.dpol.net>  
MIME-Version: 1.0  
Content-Type: text/plain;  
        charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

Guys, the following is an update on the status of the NorCal Toroid Kits.

I have received the following toroids and have them sorted and bagged.

T37-2, T37-6, T50-2, T50-6, T50-7, Ferrite Beads.

I have received information that the FT37-43 and FT37-61 toroids will ship from the factory on April 9 and should arrive here on the west coast about a week to 10 days later. When they do arrive, I will count and sort them, bag

them, and then pack all of the toroids in boxes to be shipped. When they are ready, I will take them to Sacramento so that Jim can ship them. Looks to me like they should ship around the first of May. Thanks for all of your patience and understanding. If you ordered a set and have not sent your check to Jim, please do so, as he will not ship your kit until he has received payment. As a reminder it is \$30 for the kit plus \$4 for the shipping and handling, and the payment is to be made to Jim Cates, not NorCal. Also, please enclose a self addressed mailing label to help Jim save some time. Send your \$34 to:

Jim Cates  
3241 Eastwood Rd.  
Sacramento, CA 95821

72, Doug

-----  
Date: Thu, 29 Mar 2001 11:34:50 -0800  
From: "Davies, Doug A FOR:EX" <Doug.Davies@gems3.gov.bc.ca>  
To: "'qrp-l@Lehigh.EDU'" <qrp-l@Lehigh.EDU>  
Subject: [95210] 2N3553  
Message-ID: <60F1FEB31CA3D211A1B60008C7A45F4309980222@blaze.bcsc.GOV.BC.CA>  
Content-return: allowed  
MIME-version: 1.0  
Content-type: text/plain; charset=iso-8859-1  
Content-transfer-encoding: 7BIT

Does anyone have any 2N3553 transistors that are surplus to your needs? I'm building one of the 'Little Joe' QRP transmitters and I think I fried the only one I have. Thanks in advance.

Doug VA7DD

MailTo:Doug.Davies@gems3.gov.bc.ca

-----  
Date: Thu, 29 Mar 2001 14:44:57 -0500  
From: John Harper AE5X <ae5x@qsl.net>  
To: njqrp@njqrp.org  
Cc: QRP-L <qrp-l@lehigh.edu>  
Subject: [95211] 100 mW PSK31 beacon - 3580.1 (29 Mar @ 1930 UTC)  
Message-ID: <000501c0b888\$bc455fa0\$5b7abc18@johnharp>  
MIME-version: 1.0  
Content-type: text/plain; charset=iso-8859-1

Content-transfer-encoding: 7BIT

I'm operating a beacon on 3580.1 at 100 mW with a dipole up 60 feet.

The beacon will be on the air as follows:

1930-2030 UTC (1430-1530 Eastern)

2300-0000 UTC (1800-1900 Eastern)

0030-0130 UTC (1930-2030 Eastern)

Please send reception reports. Thanks and 72,

John Harper AE5X

Outdoor QRP & Lowband DXing: <http://www.qsl.net/ae5x>

-----  
Date: Thu, 29 Mar 2001 21:28:49 +0200  
From: "Juan Jose Pastor Estornell" <juanjope@ctv.es>  
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>  
Subject: [95212] RE: [MH101] Crystal Matching [shorter]  
Message-ID: <01ca01c0b889\$896e2020\$738619d4@fer>  
MIME-Version: 1.0  
Content-Type: text/plain;  
        charset="iso-8859-1"  
Content-Transfer-Encoding: 8bit

Hi all,

Where in the 'net can I find a schematic for a series resonant  
mode crystal oscillator? TIA.

73, 72 de Juanjo, EC5ACA/QRP. EA-QRP #104, G-QRP #9742, QRP-L #1662.

Juanjo Pastor  
C/San Roque, 4-1  
46460 Silla  
Valencia  
ESPA A

Tel. +34 96 120 17 67  
Movable 651 35 35 11  
e-mail: [ec5aca@qsl.net](mailto:ec5aca@qsl.net)  
QURPE: [ec5aca@ctv.es](mailto:ec5aca@ctv.es)

-----  
Date: Thu, 29 Mar 2001 21:30:58 +0200  
From: "Juan Jose Pastor Estornell" <juanjope@ctv.es>  
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>  
Subject: [95213] Taking skeds for 10 meters...  
Message-ID: <01cb01c0b889\$8addcc0\$738619d4@fer>  
MIME-Version: 1.0  
Content-Type: text/plain;  
        charset="iso-8859-1"  
Content-Transfer-Encoding: 8bit

Hello to everybody.

I am willing to take skeds for working again the states taking advantage of the last flux peaks. I am available since 1500 to 1800 UTC on banking days (for evening shift employees, lunch break ops, retired hams and so) and will try non contest weekends. I am a bit feed up with calling for a steady hour with no takers (God bless old Alex's in Ukraine...) so I am longing for some DX action. My designated frequency will be 28.108 (stateside QSOs pse leave the freq free and QSY to any other part of the band, I have been beaten enough by that nasty F5KCK robot taking over the novice QRP calling frequency). I am looking forward to your sked mails. God bless u all in advance (GBUAIA)...

73, 72 de Juanjo, EC5ACA/QRP. EA-QRP #104, G-QRP #9742, QRP-L #1662.

Juanjo Pastor  
C/San Roque, 4-1  
46460 Silla  
Valencia  
ESPA A

Tel. +34 96 120 17 67  
Movable 651 35 35 11  
e-mail: ec5aca@qsl.net  
QURPE: ec5aca@ctv.es

-----  
Date: Thu, 29 Mar 2001 14:47:18 -0500  
From: "George Heron N2APB" <n2apb@erols.com>  
To: "QRP-L" <qrp-l@lehigh.edu>  
Cc: "NJQRP" <NJQRP@njqrp.org>, "EPAQRP" <epaqrp-l@lehigh.edu>  
Subject: [95214] Atlanticon weather & final speaker lineup

Message-ID: <005201c0b88a\$5c2f3850\$a9ca9cce@ghlpt4>  
MIME-Version: 1.0  
Content-Type: text/plain;  
charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

Well, we're down to the wire for Atlanticon QRP Forum this year -- the festivities start tomorrow in Timonium, MD at the Holiday Inn Select. People are getting real excited about the fun weekend we have in store for everyone.

First ... the WEATHER. If you check the TV or [www.weather.com](http://www.weather.com), you'll notice that there's a big low pressure system over us here in the mid-Atlantic region. Lots of rain today and tomorrow, and pretty cool ... but no snow, or anything like that. So bring your slickers and a sweater for comfort. The good news is that it'll be clearing up on Saturday, and Sunday should be picture perfect. Still a bit on the cool side (it's about 52-degrees right now), but when the sun comes out it'll be just right.

Next ... the SPEAKERS. We've now received all of the presentation material from the speakers and the Atlanticon audience is in for a BIG treat! You can see the agenda that was posted earlier (<http://www.njqrp.org/atlanticon/agenda.html>) but that doesn't do the presentations any justice. You should see the work that went into these presentations!

Ron Polityka, WB2AAL has graciously agreed to squeeze into the agenda and he'll be telling about the increasingly popular "Appalachian Trail" operations that he and the EPAQRP gang sponsor, coordinate, and provide awards for. Neat stuff!

Joe Everhart, N2CX has an absolutely phenomenal presentation worked up, talking about the technical aspects of creating microvolt-level signal generator. This guy has a wealth of practical design experience and he's sharing the best with us this weekend.

This year's Atlanticon will be the first time we're visited by the Brits: Graham Firth, G3MFJ and Tony Fishpool, G4WIF. These guys are frequent contributors to QRP-L, QRPP and SPRAT, and have an absolutely \*delightful\* presentation for us on Saturday morning. I was in the audience at NorCal's Pacificon QRP Forum last October when Tony and Graham did their tag-team review of "designs that fit into a mint tin (but don't have to!)", and was floored by the simplicity of designs they brought, described and showed. Our Atlanticon Handouts has a super collection of the circuits they'll be talking about with us in a couple of days!

We mentioned before about Rich Arland, K7SZ and how he'll be relating the field experiences of the "QRP Commandos". His slides are really neat!

And we also mentioned before how honored we are to have Steve Ford, WB8IMY with us this year. As you might've noticed last week, Steve just received a "promotion" from being Technical Editor" of QST to being the Managing Editor! Steve has done a great job in introduced thousands of hams to amateur satellite communications and PSK31 technology over the last several years, and this year he'll be speaking to us QRPers on "PSK31". He's got a wonderful presentation put together.

Jim Kortge, K8IQY has slides this year that'll knock your technical socks off! He chronicles his development efforts in bringing his Manhattan-style "4017 Transverter" to life, replete with working demo and actual hardware to hand around. And if you haven't heard the 59 prior exclamations of Jim's prowess as a "homebrewer deluxe", you'll see what we mean by seeing hi work up close and personal. Jim's craftsmanship is astounding.

I'm so very excited about Chuck Adams, K7QO coming to Atlanticon again ... Chuck brings the wisdom and operator-extraordinaire experience that is always a treasure to behold in person. Chuck has some material to share with us on one of his favorite topics: building Manhattan-style, and he has a couple of surprises that I've promised to keep quiet about until the weekend ;-)

Dave Benson, NN1G ... well, what more can we say about this expert technology pioneer. His development of simple and inexpensive "PSK31 transceivers" has led to hundreds of us getting on that mode and sharing the wonderful first experience of operating a digital mode. We have some special things lined up for Dave at the weekend, so "shhhhhh", don't tell him anything, jut be on the lookout for this quiet and unassuming giant in our QRP community. (Dave is in the process of closing on a new house this week, so he'll be buzzing around like a bumblebee with excitement if everything happens the way he's planned on the home front.)

HOTEL ROOMS ... are all gone -- BUT we were able to scarf up the last couple of rooms before the hamfest activity (and our QRP activities) reserved them all. Sooooo, if you havn;t yet decided to come for reason of not having room, please contact me immediately and we'll turn our held reservation over to you. There's nothing better than being right there in the heart of the QRP activities this weekend. Each room has two double beds, so there's plenty of opportunity to cozy up with a friend to share costs.

That's it .. hope you can make it to this year's Atlanticon QRP Forum ... you never know how many years these events will continue, so it's good to take advantage of things while they're here. The economy, one's health, and the hobby in general are all variables in life these days, so "use it while you have it" is always a good policy to follow ;-)

72/73, George N2APB

n2apb@amsat.org

Full Atlanticon details are at <http://www.njqrp.org/altanticon/>

-----  
Date: Thu, 29 Mar 2001 22:05:12 +0200  
From: "Nico Vertriest" <nvcw@village.uunet.be>  
To: "qrp-1" <qrp-1@LeHigh.edu>  
Subject: [95215] Zm-2  
Message-ID: <000901c0b88b\$9313fee0\$9604bed4@immvu>  
MIME-Version: 1.0  
Content-Type: text/plain;  
        charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

Thanks to everyone who took the trouble to email me about my problem with the ZM-2.

I carried out the whole troubleshooting procedure and found nothing wrong.

What I did find was:

- the insertion loss of the ZM-2 is very low, nearly negligible;
- tuning is very sharp. There seems to be only one point where the led will go out, and where the swr in tune and operate position are equal.

I have to get used to this, since my other z-matches (following C. Lofgren's design) tune less sharply.

73

Nico  
on4civ

-----  
Date: Thu, 29 Mar 2001 22:33:19 +0200  
From: "Nico Vertriest" <nvcw@village.uunet.be>  
To: "qrp-1" <qrp-1@LeHigh.edu>, <GQRP@egroups.com>  
Subject: [95216] Temporary license in the Philippines : procedure  
Message-ID: <001d01c0b88f\$7ecbe660\$9604bed4@immvu>  
MIME-Version: 1.0  
Content-Type: text/plain;  
        charset="iso-8859-1"  
Content-Transfer-Encoding: 8bit

Hello,



Some months ago I asked what was the correct procedure for getting a temporary amateur license in the Philippines. After some emailing back and forth (thanks to the guys who helped me !), I have found the procedure to be followed.

The best thing is to let PARA (the Philippine Amateur Radio Association) handle the processing with the National Telecommunication Commission . They are quick, efficient and charge only 290 pesos for it (4.5 or 7 US \$). Email them at : dx1par@pworld.pnet.ph They will send you several documents (as attached mail) to fill out, the most important of which is the list of equipment that will be brought, and sent back. Enclose a photocopy of your amateur license, and 2 Id photos. They accept homebrew equipment, but may ask the electronic scheme of your equipment. I had to send the circuit of my z-match.

Very important to them is a certificate of good conduct delivered by your Embassy in the Philippines. If you're living in an English-speaking country, you're lucky, you don't need to have it translated by a translator under oath. All you need to do is to enquire with the embassy of your country in Manila, what are the prerequisites for having your certificate of good conduct certified by the embassy in Manila. I am a Belgian, and needed to have the original certified by the Ministry of Justice, the translation certified by a local judge (Rechtbank van Eerste Aanleg), and by a councillor or the mayor of my town. Both then had to be legalized by the Ministry of Foreign Affairs. Only then could I have it certified by the Belgian Embassy in Manila.

Inform quite well in your Embassy in Manila what are the prerequisites for certification of your certificate of good conduct. Whichever country you come from, your temporary license will NOT be delivered in Manila if you give an original certificate of good conduct signed and certified only by your local authorities, and not by your Embassy in Manila.

My family and me will be staying in Las Pinas and Panabo (Davao del Norte) from 16 April until 19 May. I will be operating (most probably under the callsign DU8/ON4CIV) my Hands Electronics GQ-Plus on the qrp frequencies, mostly on 30, 20 and 15m, mostly on evening hours (UTC +7).

73

Nico  
on4civ

-----

Date: Thu, 29 Mar 2001 12:36:39 -0800  
From: "Doug Hendricks" <ki6ds@dph.dpol.net>  
To: <qrp-1@lehigh.edu>  
Subject: [95217] Atlanticon  
Message-ID: <01c0b88f\$f4fe1420\$330b0d0a@doug.dph.dpol.net>  
MIME-Version: 1.0  
Content-Type: text/plain;  
        charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

Guys, I sure do wish that I could get away this weekend for Atlanticon, I would love to be there. QRP Forums have become one of the neatest events of the year for me. They are better than my birthday, because I get to see so many people that I know, and I get to meet so many that I have seen post on qrp-1, or corresponded with. This is a people hobby for me, and I love it.

If you are anywhere near Atlanticon, I urge you to take the time and attend. The speaker lineup that George Heron and the rest of the NJ QRP club has lined up is unbelievable. How can he get so much talent in one place on one weekend? It is simple. He is a mover and a shaker. George gets things done, and he puts together a great show. The NJ QRP Club uses the same philosophy that we do here at NorCal, and that JayBob uses at Arkiecon. Have fun and put things back in to the hobby. Contribute. The NJ Club has several projects going all the time. They do this as a service to qrpers and club members. And they make a small profit on their kits which they use to finance Atlanticon. All of the speakers have their expenses paid by the NJ QRP Club. Airfare and hotel accommodations. It is not cheap. Plus, George rents the forum room and the hospitality suites. Does the printing, etc. All the little details. So much time spent. And sometimes you get criticized for what you do. 1 to 2% do that. But guess what, the other 98 to 99% have the time of their life. Guys, when you are at Atlanticon this weekend please enjoy yourself, post to the list some of the things going on so we can enjoy it too, and most of all, please say thanks to George and the NJ gang for all of the work that they put on. Also, please tell the speakers how much you enjoyed their efforts and talks. Believe me they have worked very hard to entertain you, and they will.

Also, even though Lord Firth and Sir Tony are titled, it is appropriate to just call them Tony and Graham since we are in the states. IF they were in England, it would be a different matter. You must ask Tony for the proper way to greet Lord Firth. Also, Paul Harden told me that they fit right in in New Mexico???? That one I find hard to understand. But maybe he took them to the Owl Bar. Tony told me that he never saw a pub that he did not like. Have a fun weekend guys, would love to be with you at the PREMIER QRP Event of the year east of the Mississippi. 72, Doug

-----  
Date: Thu, 29 Mar 2001 16:27:41 -0500  
From: "Wilford D. Lindsey" <70511.3041@compuserve.com>  
To: ".QRP-L Discussion Group" <QRP-L@Lehigh.edu>  
Cc: ")W.D.(Doc)Lindsey/K0EVZ" <70511.3041@compuserve.com>  
Subject: [95218] Add Dave N0IT to Cub Xtreme Hunt :-)  
Message-ID: <200103291627\_MC2-CA8B-AE4E@compuserve.com>  
MIME-Version: 1.0  
Content-Transfer-Encoding: quoted-printable  
Content-Type: text/plain;  
charset=ISO-8859-1  
Content-Disposition: inline

Gang:

Accidentally missed listing Dave N0IT among the Cub FOXes for next Tuesday evening's Xtreme FOX Hunt. Sorry about that Dave. Hope I did not miss someone else. If I \*did\* miss you, please let me know and we'll go on from there. =

Hey everybody, don't know about you, but I'm getting really pumped for the Xtreme FOX hunts next Tuesday. Plan now to be there.

72,  
--Doc/K0EVZ =

-----  
Date: Thu, 29 Mar 2001 19:24:17 +0100  
From: Larry Cahoon <lejek@erols.com>  
To: Rick Robinson <rrobins@email.uncc.edu>, qrp-l@lehigh.edu  
Subject: [95219] Re: Battery Comparisons on the K1 - Alkaline vs NiMH  
Message-ID: <5.0.2.1.0.20010329192155.009eabd0@pop.erols.com>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"; format=flowed

Rick et al,

I've been using a short piece of solid 12 gauge copper wire bent at both ends to just fit into the battery holder. In the past I've used a small dowel and put a thumb tack in both ends and run a wire from one end to the other.

73 de Larry.....WD3P

At 08:29 AM 03/29/01 -0500, you wrote:

>What do you use for a dummy battery when using alkalines?

-----  
Date: Thu, 29 Mar 2001 16:12:17 -0500  
From: Bill Coleman <aa4lr@arrl.net>  
To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>  
Subject: [95220] Re: St. Louis Radials  
Message-ID: <200103292106.QAA07460@mail0.atl.bellsouth.net>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="US-ASCII"

On 3/28/01 1:46 PM, Doug Hendricks at ki6ds@dph.dpol.net wrote:

>Guys, I did an experiment with the St. Louis Radials. I used 8 sets of 7  
>strands, that were 16.5' long. They were fanned out from the base and  
>spaced evenly. I then changed the radial system to ones that were made from  
>a single conductor of #24 solid copper that was enameled wire, but they were  
>the same length and spaced the same.

>

>The on air results were that the ST. Louis radial system seemed to hear  
>better, and signals seemed to be louder. Note the key word here, seemed.  
>My measurements were subjective and not quantitative.

That makes sense. Consider that the resistance of the 7 parallel strands  
is probably a lot less than the single strand. Since you have less losses  
in your radial system, you have better coupling to the ground, which  
improves the effectiveness of your antenna.

>Other questions come up. Does the volume of wire make a difference. In  
>other words, should I have the same amount of copper in both systems?  
>Maybe I should have used #20 instead of #24 to get the same amount of  
>copper.

Two words: skin effect.

At RF, the vast majority of the current flows in a very thin layer close  
to the surface. If you could somehow manufacturer ribbon cable with tiny  
metal tubes instead of wire, you probably wouldn't notice any difference.

If you used wire with a similar SURFACE AREA, you're more likely to get  
similar results.

>Physics tells me that if you have 7 conductors of #28 wire and compare it to  
>1 conductor of #28 wire that there has to be a difference. Is it  
>measurable?

>

>Let's hear from the experts on this one. Thanks, and curious to know.

7 conductors have 1/7 the resistance of a single wire. They also have 7  
times the surface area.

Bill Coleman, AA4LR, PP-ASEL                      Mail: aa4lr@arrl.net  
Quote: "Not within a thousand years will man ever fly!"  
      -- Wilbur Wright, 1901

-----  
Date: Thu, 29 Mar 2001 13:42:28 -0800  
From: "Doug Hendricks" <ki6ds@dph.dpol.net>  
To: "Bill Coleman" <aa4lr@bellsouth.net>  
Cc: <qrp-1@Lehigh.EDU>  
Subject: [95221] Re: St. Louis Radials, Dave Gauding & JayBob, Nose Hair Special &  
Paul Harden's Sunspots, whew!!  
Message-ID: <01c0b899\$2699e1e0\$330b0d0a@doug.dph.dpol.net>  
MIME-Version: 1.0  
Content-Type: text/plain;  
          charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

Bill, thank you for a very informative reply. I have been told that the 7  
conductors in the ribbon cable radial acted just the same as a single  
conductor. I have never believed it due to the laws of physics and matter.  
Thank you for taking the time to explain it to me. Both you and Phil have  
added greatly to my understanding as to what is going on with a radial  
system, and have done it very graciously too, for which I thank you.

Bill has it exactly right when he says build it and see if it works. That  
is what I do with all of Dave Gauding's wonderful work with portable  
antennas. I also must say that I was much more skeptical about Vern  
Wright's PM1 and MP1 when I first saw them than I was the St. Louis stuff  
from Dave. But you know what? Vern's stuff works pretty darn good, and  
his ribbon cable radials work just fine in his application too.

I enjoyed JayBob's account of the antenna that Dave Gauding put up at  
Dayton. Dave calls that particular version the nose hair special, because

when he puts it up, all you can see is a bunch of old hams looking up at the thing and shaking their heads, You get a great view of nose hair when an old ham looks up. Look in the mirror and see what I am talking about if you don't believe me. (And you though you could only learn new and exciting stuff from NA5N, grin.) Jay forgot to say that Wayne Burdick was there with I believe a prototype version of a K2 and worked Germany with it on 20 meters I believe while he and Dave were talking about the finer points of TenTecs.

I also went out and checked out the sunspot that Paul was talking about today at lunch time. Wow! That is one huge sunspot. Please don't look with your naked eye. I used a pinhole setup to view it. Worked great!! Paul I checked the aurora map, dang it too far north for me. Looks like it might make it down to Northern California, but that is a long way for me to go.

Ok, have a good one. 72, Doug

-----Original Message-----

From: Bill Coleman <aa4lr@bellsouth.net>

To: ki6ds@dph.dpol.net <ki6ds@dph.dpol.net>; Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>

Date: Thursday, March 29, 2001 1:05 PM

Subject: Re: St. Louis Radials

>On 3/28/01 1:46 PM, Doug Hendricks at ki6ds@dph.dpol.net wrote:

>

>>Guys, I did an experiment with the St. Louis Radials. I used 8 sets of 7  
>>strands, that were 16.5' long. They were fanned out from the base and  
>>spaced evenly. I then changed the radial system to ones that were made  
from

>>a single conductor of #24 solid copper that was enameled wire, but they  
were

>>the same length and spaced the same.

>>

>>The on air results were that the ST. Louis radial system seemed to hear  
>>better, and signals seemed to be louder. Note the key word here, seemed.  
>>My measurements were subjective and not quantitative.

>

>That makes sense. Consider that the resistance of the 7 parallel strands  
>is probably a lot less than the single strand. Since you have less losses  
>in your radial system, you have better coupling to the ground, which  
>improves the effectiveness of your antenna.

>

>>Other questions come up. Does the volume of wire make a difference. In

>>other words, should I have the same amount of copper in both systems?  
>>Maybe I should have used #20 instead of #24 to get the same amount of  
>>copper.  
>  
>Two words: skin effect.  
>  
>At RF, the vast majority of the current flows in a very thin layer close  
>to the surface. If you could somehow manufacture ribbon cable with tiny  
>metal tubes instead of wire, you probably wouldn't notice any difference.  
>  
>If you used wire with a similar SURFACE AREA, you're more likely to get  
>similar results.  
>  
>>Physics tells me that if you have 7 conductors of #28 wire and compare it  
to  
>>1 conductor of #28 wire that there has to be a difference. Is it  
>>measurable?  
>>  
>>Let's hear from the experts on this one. Thanks, and curious to know.  
>  
>7 conductors have 1/7 the resistance of a single wire. They also have 7  
>times the surface area.  
>

-----  
Date: Thu, 29 Mar 2001 13:49:13 -0800  
From: "Doug Hendricks" <ki6ds@dph.dpol.net>  
To: <qrp-1@lehigh.edu>  
Subject: [95222] Apology for excessive quote.  
Message-ID: <01c0b89a\$184f52e0\$330b0d0a@doug.dph.dpol.net>  
MIME-Version: 1.0  
Content-Type: text/plain;  
charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

Guys, I forgot to erase the original message from Bill in my posting to the  
list. I apologize for the waste of bandwidth and your time. 72, Doug

-----  
Date: Thu, 29 Mar 2001 14:13:03 -0800  
From: "Davies, Doug A FOR:EX" <Doug.Davies@gems3.gov.bc.ca>  
To: "'qrp-1@Lehigh.EDU'" <qrp-1@Lehigh.EDU>  
Subject: [95223] Drift Problem in MFJ 9020  
Message-ID: <60F1FEB31CA3D211A1B60008C7A45F4309980225@blaze.bcsc.GOV.BC.CA>

Content-return: allowed  
MIME-version: 1.0  
Content-type: text/plain; charset=iso-8859-1  
Content-transfer-encoding: 7BIT

Contacted MFJ as per a number of suggestions and they are going to replace a couple of the inductors that were inherently bad. Thanks to all who replied. Great list.

Doug VA7DD  
MailTo:Doug.Davies@gems3.gov.bc.ca

-----  
Date: Thu, 29 Mar 2001 17:14:12 -0500  
From: Fred Lesnick <flesnick@tbaytel.net>  
To: sjolin@swbell.net, Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>, QRP Canada <qrp-canada@lists.gpfn.sk.ca>  
Subject: [95224] Re: Fox: Announcing the XTREME FOXHUNT!  
Message-ID: <3AC3B3B4.70C59162@tbaytel.net>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Count me in as a Xtreme Cub, I will park my pelt in teh novice band on Tuesday night...

Fred  
VE3FAL

Dave Sjolin wrote:

>  
> Tom Dufresne wrote:  
> >  
> > Mike:  
> > Sounds like a real trip! How about some of them thar foxii opp'ing on the  
> > nov-ice band for us newbies, huh?  
> > Just a suggestion...  
>  
> Any thought to expanding this to Cub Foxes so we can provide pelts and  
> entertainment up in the Novice band for newbies? If it adds to the work,  
> I would be happy to coordinate that end of it.  
>  
> 73 de Dave, N0IT

-----  
Date: Thu, 29 Mar 2001 17:18:59 -0500



From: John Harper AE5X <ae5x@qsl.net>  
To: QRP-L <qrp-l@lehigh.edu>  
Subject: [95225] RIT for SST?  
Message-ID: <001b01c0b89e\$41058c00\$5b7abc18@johnharp>  
MIME-version: 1.0  
Content-type: text/plain; charset=iso-8859-1  
Content-transfer-encoding: 7BIT

Hello reflectees,

Has anyone added an RIT circuit to their SST. I'd appreciate any details from anyone who has.

Gracias,

John Harper AE5X  
Outdoor QRP & Lowband DXing: <http://www.qsl.net/ae5x>

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Date: Thu, 29 Mar 2001 15:22:10 -0700  
From: "Mugleston, Brad" <brad.mugleston@gwl.com>  
To: qrp-l <qrp-l@lehigh.edu>, CQC <cqclist@egroups.com>  
Subject: [95226] 80M QSO Wanted  
Message-ID: <F9645092A142D3118CBD00805F15292E12B22343@eb-mail1.gwl.com>  
MIME-Version: 1.0  
Content-Type: text/plain

I re-read my request for listeners/contacts and realized my posted frequency is wrong - I will be on or about 3.570 - the reason for that is that I've been able to get my transmitter fairly stable there (the air variable capacitor if fully engaged and my ground clip on the air variable coil hasn't moved). These things are real picky - you put your hand out to change frequency and before you touch anything the frequency has changed so except for repeatable positions it's hard to tell what your getting. Heck, the transmit frequency even changes when I change the settings on my antenna tuner.

For those of you wondering what the other frequency was I got the 5 and the 7 reversed (now you know how bad my CW must be).

Thanks to all those who have responded and all those who will try to find/follow me.

de KI00T, Brad

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Date: Fri, Mar 30 2001 9:35:28 GMT+1100  
From: <glentorr@ozemail.com.au>  
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>  
Subject: [95227] Re: RIT for SST  
Message-ID: <20010329223528.JOAK29220.mta06.mail.mel.aone.net.au@localhost>  
MIME-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Howdy All,

Not directly an answer but I have, following recent posts pondered the fitting of an NC40A into an SST sized box, giving RIT and greater BW.

I have an SST and have built a card board NC40 case for size comparision.

I am gathering parts to build the NC40A from the EE20 notes, will build it Manhattan style then attempt to fit it in the SST sized case using manhattan techniques.

Further into the speculative area is an NC40A transmitter with a Sierra Receiver (more Gain) in an SST sized box.

These projects are in the parts gathering stage and I have undertaken to myself to finish (and use) the QRPL-30, then complete my Georgia Sierra befor moving on to the SST/NC40A hybrid.

Cheers

Grasshopper Glen VK1FB

This message was sent through MyMail <http://www.mymail.com.au>

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Date: Thu, 29 Mar 2001 18:24:44 EST  
From: Drbob92031@aol.com  
To: qrp-l@lehigh.edu  
Subject: [95228] Loading question  
Message-ID: <8f.8e32e6b.27f51e3c@aol.com>  
MIME-Version: 1.0  
Content-Type: text/plain; charset="US-ASCII"  
Content-Transfer-Encoding: 7bit

Hi to all;

I have received so much knowledge and assistance from this group that I must dip into the well again.

SITUATION; I have a 20/15/10 ground mounted vertical. I would like to add 40 M but I do not intend to extend the 16'6" 20M aluminum vertical to 30 something feet. I would like to add a loading coil at the top. In this manner I would be able to use a hose clamp and place the coil at the top of the 20M mast (vertical) and with the appropriate radials work 40M. I even think that a length of 14ga made into a coil (self supporting) with a leg at either end to complete the 40M addition; is my dream. If this is a nightmare let me know. All responses are gratefully accepted.

Space is a premium and antennas are forbidden. I put up and take down the vertical for each operating session. Its a bummer but it could be worse.

72/73 de Bob.WA2EAW (now in 4 land as a retiree.)

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Date: Thu, 29 Mar 2001 13:50:25 -0800  
From: "Dave Benson" <nn1g@earthlink.net>  
To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>  
Subject: [95229] Re: Warbler and 'shadows'  
Message-ID: <000201c0b8c2\$c6de5680\$b27fbfa8@pavilion>  
MIME-Version: 1.0  
Content-Type: text/plain;  
        charset="iso-8859-1"  
Content-Transfer-Encoding: 7bit

Bill and Cla-

The first-and easiest- step to try is to back down the soundcard microphone slider to reduce the drive level. It's quite possible the sound card is being overdriven. The lack of AGC in the Warbler makes this phenomenon more likely.

The SA602 is indeed not 'crunch-proof'. The crystal filtering on the Warbler is ahead of that mixer- an unconventional arrangement, so the 'near-band' and 'out-of-band' signals should rapidly fade into insignificance within a couple KHz away. 'Rockcrusher' signals within the Warbler's 1 KHz passband could indeed cause spurious signals, but that should be a relatively uncommon event.

On the other hand, it's been a while since I've been on 3580 KHz- we're moving soon (details to follow) and the antennas are down. For all I know, it's now 'pileup-city' there on a nightly basis. There are a lot of Warblers out there. :-)

73- Dave Benson, NN1G

>-----Original Message-----

>From: William Mabry <n4qa@hotmail.com>...

>Subject: Re: Warbler receive problem "Shadows"

>Hi, Cla and fellow Warbleheads.

>I have also experienced the 'multi-single-signal' phenomenon while receiving

>big sigs on the Warbler, aka PSK-80.

>While I haven't spent a whole lot of time looking into this, I am of the  
>opinion that DigiPan, for example, is pretty much displaying that which is  
>presented to it. The SA602 mixer, in its various forms, seems a bit given to

>delivering spurious mixer products in the presence of very strong 'in-band'  
>and even 'near-band' signals. ...

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Date: Thu, 29 Mar 2001 18:57:18 EST

From: Rlemmel@aol.com

To: qrp-l@lehigh.edu

Subject: [95230] Computer rescue

Message-ID: <91.8ea6a4b.27f525de@aol.com>

MIME-Version: 1.0

Content-Type: text/plain; charset="US-ASCII"

Content-Transfer-Encoding: 7bit

About a year ago my Packard-Bell 166 retired. The indication was a hard drive failure (I cannot remember the specific details). Bought a new computer and let the other sit until recently got more room in shack and thought I would try to repair the old one to use for ham related apps. I had previously replace the cd-rom drive and all had worked well. I bought new drive and placed into space where old came out. Now when trying to install windows 95 from floppy and cd-rom that came with the computer every thing seems to go well until I get a message that says cannot determine cd-rom drive, error level 100, and a dos prompt. I tried putting the old hard drive back in and it statarted to load then reported corrupted files and missing files. Tried to reboot with the old floppy and cd-rom and same results as first try, i.e. cannot determine drive, error level 100, and dos prompt. If any computer whiz can help with this problem I will be very grateful. TIA - Randy,wv9n

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Date: Thu, 29 Mar 2001 17:03:15 -0700  
From: Roy <marion@montana.com>  
To: ae5x@qsl.net, "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>  
Subject: [95231] Re: RIT for SST?  
Message-ID: <4.3.1.2.20010329170106.00a7e370@mail.montana.com>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"; format=flowed

At 05:18 PM 3/29/01 -0500, John Harper AE5X wrote:

>Hello reflectees,

>

>Has anyone added an RIT circuit to their SST. I'd appreciate any details  
>from anyone who has.

It was an easy matter to put one of Dave Bensons RIT kits in my SST's . I  
have also 10 turn pots with extended VFOs in same. Roy AB7CE

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End of QRP-L Digest 2142

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